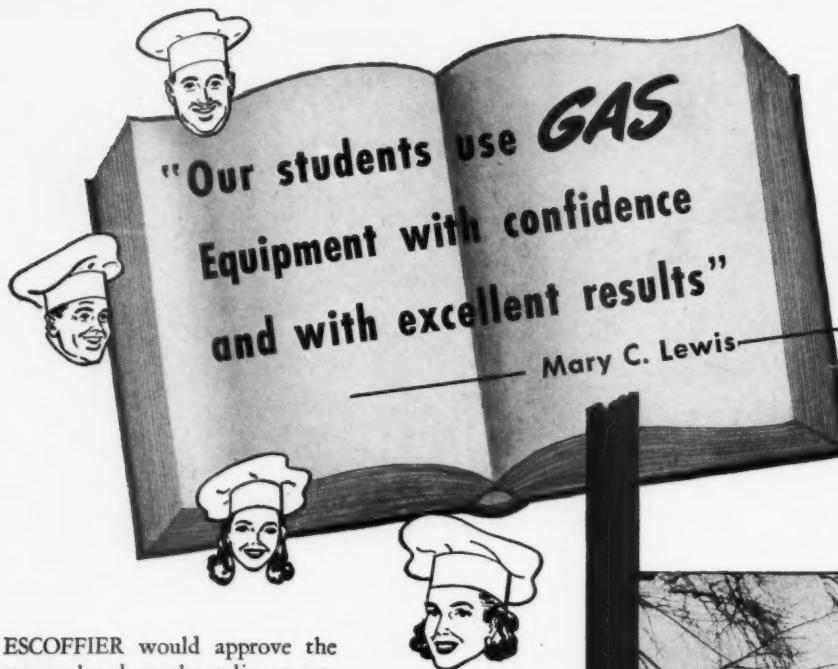




Association

MAY 1948

VOL. 30 · NO. 5



Mrs. Mary Catherine Lewis,
President, Lewis Hotel Training
School, only school of its
kind in the world.



ESCOFFIER would approve the stress placed on the culinary arts at Lewis Hotel Training School, Washington, D.C. You find the results of this thorough teaching wherever Lewis-trained hotel executives preside.

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School, Washington,
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AMERICAN GAS ASSOCIATION
420 LEXINGTON AVENUE, NEW YORK 17, N.Y.



RENE MUNTZ shows in this issue how home service is using a subtle new approach to the basic aim of the gas industry—to provide a more gracious way of living for its customers. Numerous other steps have been taken toward this goal. . . . Four spring conferences in fields ranging from accounting to commercial gas cooking have supplied a wealth of information which will enable new advances in efficient service during coming months. . . . Because sound utility financing is a matter of deep interest to all top management, Mr. Hopkinson's analysis of this subject has been given the lead-off spot in the current issue. . . . Completion of a modern oil laboratory in Chicago, revision and simplification of approval requirements standards, and a large increase in sales of automatic gas ranges built to "CP" standards, all are moves designed to raise still further the public's standard of living. . . . At the same time, it is imperative in this age of international indecision that we help the nation prepare to meet any emergency. Therefore, formation of a group to study and report on the gas industry's capabilities in event of war is underway and will be announced in a future issue of the MONTHLY.

JAMES M. BEALL
EDITOR
JAC A. CUSHMAN
MANAGING EDITOR

EDITORIAL OFFICES:
AMERICAN GAS ASSOCIATION
420 LEXINGTON AVE., NEW YORK 17, N.Y.

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Fundamentals of Utility Financing

By EDWARD HOPKINSON, JR.

Senior Partner, Drexel and Co.; Member, President's Advisory Committee on the Conduct and Financing of U. S. Foreign Trade; Past-President, Investment Bankers Association of America

ANY discussion of utility financing over the coming months or years must be based upon certain assumptions as to business activity and, indeed, as to Government fiscal policy, both of which are vital factors in any attempt at appraisal of tomorrow's money market.

A recent bulletin published by the Philadelphia Federal Reserve Bank was entitled: "1947: Year of the Slump That Never Came." I think recent events make any important recession in business activity during 1948 more unlikely than some of our economists and forecasters thought probable, even recently. The adoption of the European Relief Program on a non-partisan basis, the corollary rearmament program and the passage of the tax relief measure over the President's veto by overwhelming majorities, are all, in my opinion, constructive steps forward.

The adoption of these measures should strengthen our own confidence in the future, and certainly reconstruction of Western Europe and our own preparedness for war, if need be, is the best way to minimize the likelihood of war. True enough, the added foods and goods required for the European Program and for our own rearmament, while they do not represent an important percentage of our total production, mean some increase in inflationary pressures.

Now one of the important factors in making any assumptions regarding tomorrow's money market is how wisely the Treasury and the Federal Reserve system handle the national fiscal policy.

One school of thought has more or less consistently ad-

vocated monetary and/or price controls to cure inflation. In my opinion there is no magic formula to halt inflation. The only real answer, I believe, lies in greater enterprise and in greater production. If this is the right answer, then the measures which should be encouraged by government and by private enterprise, are those which will create a healthy atmosphere for business and stimulate greater production, so as to more nearly bring into balance the supply of goods with high demand, which is a natural corollary of full employment at high wages.

Great monetary inflation during the war was inevitable. Control of the supply of money is now in the hands of our fiscal and monetary authorities, not the commercial banks of the country. The balance between inflation and deflation will depend upon the wisdom with which the authorities exercise these controls. This caution and wisdom was not exercised in 1920, 1929, and 1937, with the result that deflation was precipitated and, once started, was hard to stop, as has been proved in those disastrous episodes in our financial history.

I am firmly convinced that the Federal Reserve System should continue to follow its present policy of modest action to restrain a further expansion of bank credit, but for it to take aggressive action to reduce the existing supply of available funds, might well produce a disastrous check upon the expansion of business enterprise so necessary to increase production.

To bring about deflation by general credit restriction, it must be such as to create unemployment and an indiscriminate reduction in consumers' disposable income before it could be effective. The food price situation is one of our most serious problems and continued high or rising prices for food makes much more likely another round of wage increases, and so on. But we cannot expect a reduction in the aggregate demand for food (or other consumer goods) by following a policy of allowing Government security prices to seek their own level, or by forcing security prices down by Federal Reserve sales to contract credit, unless the policy were carried to a point that substantially reduced production and employment, and, therefore consumers' disposable income.

I do not believe this should, or will happen, and therefore I look for relatively stable basic long-term money rates. If I am correct in my appraisal of this Governmental policy, it means the public utility companies, with sound capital structures,

Presented during joint A.G.A.-E.E.I. National Conference of Electric and Gas Utility Accountants in St. Louis, Mo., April 12-14.

♦ Welding last connection in 24-inch pipeline to transport natural gas from Texas to Cincinnati area. Picture by C. J. Ewald, The Cincinnati Gas & Electric Co., Cincinnati, Ohio

should be able to finance the appropriate portion of their new capital requirements by conventional type 25-30 year bonds at around present interest levels. However, one must expect fluctuations in these rates from time to time as the law of supply and demand asserts itself, as is illustrated by the current higher yield required to successfully distribute new issues compared to comparable outstanding issues, often of the same company.

I am familiar with the Edison Institute Survey of the needs of the electric companies, made in 1947, and there is no need for me to do more than merely relate it to the problem of the different types of securities available to secure from investors the huge sums of money required, in addition to those generated within the companies through depreciation reserve accruals, debt discount and other reserves and surplus earnings available for construction; in other words, not paid out as dividends. The over-all figure in 1947 was estimated at around five billion dollars for the electric utilities alone. I understand this figure is now considered probably on the low side, due to increased prices and some projected additional projects.

Likewise, the gas industry has substantial capital requirements. You are familiar with the enormous demand for natural gas, for straight or mixed use, in areas where it has heretofore been unavailable, as well as in manufacturing and other processing operations where gas has demonstrated its superiority to other fuels.

In 1947 over 700 million dollars will have been spent for new gas facilities, with more than half the total going into natural gas transmission facilities. This figure compares with about 300 million dollars construction expenditures in 1946, which in turn, was an increase of almost 100 percent over the previous year. The construction figure I have used for 1947 includes the purchase from the Government by private interests of the Big Inch and Little Inch lines and their conversion from oil carrying to natural gas transmission. Having regard to applications pending before the Federal Power Commission for extensions and additions, the expenditures for 1948 and subsequent years will, no doubt, be very substantial.

In addition to the electric and gas

program, the telephone companies are competitors for the dollars of the same class of investors to whom you must go. Enormous sums of money are required by the telephone companies. In 1947 six issues offered by American Telephone and Telegraph Company and its subsidiaries, aggregated over one billion dollars, practically all for new money. This included 360 million dollars convertible debentures offered for subscription by stockholders.

The U. S. Department of Commerce has recently made a study entitled "Business Financing in the Postwar Period,"



Edward Hopkinson, Jr., speaking at St. Louis

in which it is pointed out that "capital requirements amounting to 50 billion dollars for non-financial corporations in 1946 and 1947 inevitably led to a growing pressure of demand upon the available sources of funds for business investment—focusing attention for the first time in many years on possible deficiencies in the supply of capital, particularly equity capital."

During 1946 a very substantial part of these requirements was available in the form of the excess liquidity built up during the war years, but a good deal of this had disappeared in 1947, as is shown by the very substantial increase in security issues in that year. Over two-thirds of the amount of net security issues during 1947 took the form of bonds. The remainder was distributed between common and preferred stock with the former much the more important of the two. The volume of net equity issues in 1947—both common and preferred—was about the same as

in 1946, but there was a much larger rise in bonded indebtedness. Life insurance companies absorbed nearly four-fifths of the increase in debt securities during 1946 and 1947, while individuals bought stocks and sold bonds on balance in both 1946 and 1947.

According to the Department of Commerce survey, approximately half of the increase in security issues during 1947 was attributable to the industrial and miscellaneous industries, primarily manufacturing, while the other half is almost evenly divided between the telephone and electric and gas utilities. Manufacturing corporations as a whole showed less dependence on outside sources of funds in 1947 than corporations generally.

The estimated four billion dollars of net new issues raised through the capital markets in 1947 by corporations other than investment companies, seems to be above the levels of the late 1920's and probably was the highest in history. Corporate bank loans increased three billion dollars in 1947, nearly as high as in 1946, and was equalled previously only in 1919-1920 following World War I.

For any one interested in a comparison of bond and stock yields and other data having relation to various types of securities going back to 1919, I commend this survey. The last paragraph thereof paves the way for some of my later remarks:

"Second, in view of the dangers in debt as compared with equity financing, it is generally agreed that every effort should be made to encourage the latter as part of any long-run financial program. The increased flow of the public's saving into insurance, the greater role played by the Government—reflecting in part a changed world situation, and the related changes in the rates and structure of taxes, all help to intensify a problem of long standing, that of raising risk capital. No workable solution to this problem is likely to be reached which does not recognize these and other institutional changes in our economy over the past few decades."

Obviously the form the prospective new money offerings of particular companies will take, whether senior or equity financing, will depend on the situation within the particular company. My comments, however, will necessarily

have to deal with the electric and gas industry as a whole, fully recognizing that their application to specific companies will develop variations from the general pattern. Fortunately the utility industry, as a whole, shows an over-all well-balanced capital structure with sound debt ratios.

Securities and Exchange Commissioner McEntire, in an address before the National Association of Railroad and Utility Commissioners, in the summer of 1947, developed some interesting statistics based upon a S.E.C. study "for a group of 70 companies, which constitutes nearly all the electric utilities whose common stocks are traded in sufficient quantity to provide a reliable market." He reported:

"At the end of 1946 these companies averaged about 50 percent debt, 17 percent preferred stock, and 33 percent common stock and surplus. Only nine of these companies carried as much as 60 percent debt; five of these nine had no preferred stock outstanding, so that common equity accounted for the remainder of the capitalization. Only two of these 70 companies had an equity of less than 20 percent at the end of last year and only nine others fell under 25 percent in this respect. At the close of 1935 the books of nearly a third of these 70 companies showed less than 25 percent

equity. This ratio was per books, and, as we know, reflected much 'water' now eliminated by regulatory action.

"In addition, the ratios, per the books of 1935, were also overstated because of inadequate depreciation reserves. In 1935 an 8.75 percent depreciation reserve was about average and a reserve of as much as 15 percent was rather exceptional. Today the average company in our 70-company sample has depreciation reserves amounting to 22.5 percent and the reserves of only seven companies fall below even a 15 percent level."

The Securities and Exchange Commission's objective with regard to new financing of companies subject to the Holding Company Act, has been, wherever possible, to limit funded debt to 50 percent of net fixed assets and to limit additional bonds to 60 percent of net additions to fixed property. Generally speaking, their objective has been to limit debt and preferred stock to not exceeding 75 percent of total capitalization, and to have a common stock capital and surplus of at least 25 percent. Dividend restrictions have been imposed where the latter ratio represented less than 25 percent of capitalization.

These are sound objectives. The management of any particular company is well advised to endeavor to maintain or attain them.

In the same address Commissioner McEntire satisfactorily demonstrates that the common stocks of companies having the weaker capital ratios, sell at a lower price earnings ratio and usually at a higher yield than the stocks of companies more conservatively capitalized. I am sure the same thing would be generally true of preferred stock yields. Of course the price earnings ratios of particular common stocks may be distorted by an unusually high or unusually low percentage of earnings paid out in dividends, as the yield factor is probably of more importance with relation to current market prices than the times earnings factor.

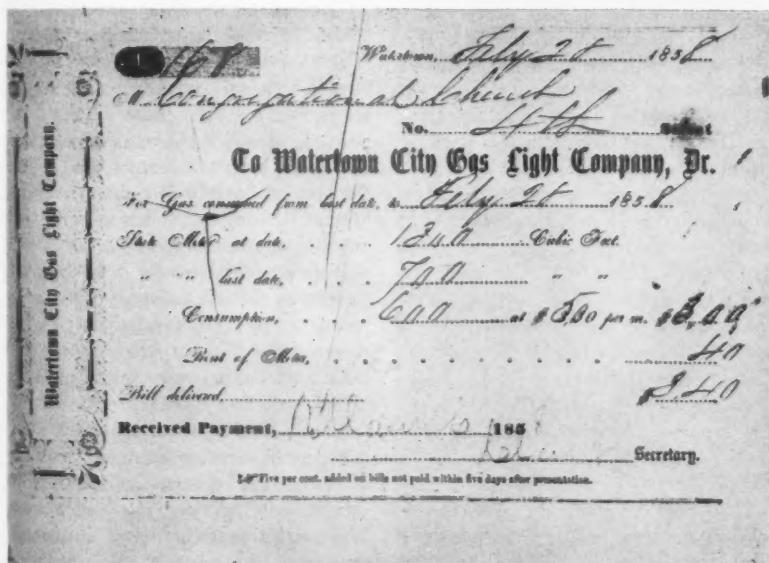
Earnings Compared

Commissioner McEntire divided the 70 companies referred to, into three groups. The companies in Group A constituted the upper third and had a median debt ratio of 37.5 percent, very little preferred stock, and common equity including surplus of 58.7 percent. At June 30, 1947, the common stocks of these companies sold at an average of 16.4 times earnings and 20.5 times dividends. Group B showed only slightly higher debt ratios, the median being 40.8 percent, but due to greater use of preferred stock, the average common equity was 40.1 percent. Earnings of this group were valued at an average of 13.1 times earnings at June 30, 1947, and sold at 17.5 times dividends. Group C had a larger debt burden, the median being 54.2 percent. Preferred stock was less prominent than in Group B, and common equity amounted, on the average, to 34.2 percent of the capitalization. The average Group C equity was priced at June 30, 1947 at nine times earnings and 15.4 times dividends.

The names of the 70 companies used by Commissioner McEntire have not been disclosed, but their average market price probably corresponds pretty closely to those of the Dow-Jones Public Utility Common Stock Averages which, at June 30, 1947, were 34.73. At the end of March 1948, they were slightly lower at 33.27.

Commissioner McEntire further demonstrated that all companies in the sample having Triple A bonds, fell in Group A; (Continued on page 42)

Remember When Gas Bills Looked Like This?



Ninety-year old receipted gas bill which was donated recently to the A. G. A. library

How to "Tame" the LP-Giant

Texas official sees need for natural gas companies to give benefits of their knowledge to liquefied petroleum gas field

By CHESTER L. MAY

Vice-President, Lone Star Gas Co.,
Dallas, Texas

DURING the past several years, the letters "L.P.G." have grown in prominence nationally. They are an abbreviation of the term "liquefied petroleum gas," which refers mainly to propane and butane, and various mixtures of these two products.

Confined commercial propane develops about 200 pounds per square inch vapor pressure at a temperature of 130 degrees F, and has a heating content of 2,550 B.t.u. per cubic foot. Comparably, commercial butane develops about 100 pounds pressure and contains 3,200 B.t.u. Both are heavier than air. These liquefied gases are produced at natural gasoline plants, cycling plants, and refineries, and are transported in railroad tank cars or large transport trucks to bulk storage tanks located in customer distribution centers.

In the southern and southwestern sections of the United States, these gases are then loaded into smaller tank trucks, and from them delivery is made into tanks, usually from 100—500-gal'lons capacity, located on customers' premises to supply their general fuel needs, such as cooking, water heating, refrigeration, and house heating. In the northern and eastern parts of the country, propane is widely delivered to and used by the customer from 100-pound capacity portable cylinders or so-called bottles. In this



Butane delivery truck being filled from one of gas company's bulk storage tanks

method of operation, the propane is usually transported from producing plants to bottling plants in tank cars. The filled cylinders are transported in trucks to dealers' warehouses or stores, and from there delivered to the customers' homes. These dealers are frequently hardware merchants, filling station operators, fuel oil dealers, garage owners, truckmen, or operators of a variety of other establishments. Bottled gas is generally used for cooking and water heating only, as its price is practically prohibitive for house heating.

In this area, the type and size of customers using butane and propane are about the same as we are serving with natural gas, except, due to some higher cost, it is not widely used by larger industries. Probably no home service business has ever grown with the startling rapidity that has surrounded this business during the past ten years, and taken as a whole, today it is an enormous industry.

At the end of 1947, it is estimated that four and one-half million homes were using LP-gas service—approximately one-fifth of all the homes in the United States using gas.

It is estimated that 25 percent of all gas ranges manufactured in 1947 and 20 percent of all water heaters were installed for LP-gas users. The total volume of LP-gas sold during 1947 is estimated at two billion gallons, which is the equivalent of 200 billion cubic feet of natural gas, and the gross busi-

ness is estimated at \$450 million. In Texas alone, there are over 1,300 state licensed butane and propane distributors. Numbers are even greater in other sections. As an example, in the Chicago area there are some 1,600 dealers dispensing propane in cylinders.

There are probably not less than 35,000 distributors and dealers operating in this country, most of whom have a relatively small investment in the business. There are, however, some large operating concerns, such as Shell, Phillips, Skelly, Union Carbide, Standard of New Jersey, and Lone Star, which are producers, wholesalers, and retailers. There are other large concerns, such as Warren, Anchor, Cities Service, and Sun, which are producers and wholesalers, but not retailers.

Propane was the first of these gases to be used as a fuel in the home, and its distribution in cylinders, known as the "bottle gas system," began some 25 years ago. However, these 100-pound cylinders, which contain only about 23 gallons or the equivalent of 2,000 cubic feet of 1,000 B.t.u. natural gas, were for several years sold for \$20 or more, and their distribution was quite naturally rather limited in number.

Lone Star began selling propane in 100-pound capacity cylinders in 1928, and our gas systems consisted of a cabinet holding two cylinders, a regulator, and a concrete foundation, which were installed on customers' premises. Fuel supply was replenished by exchang-

Presented at Southern Gas Association convention in Galveston, Texas, March 26, 1948.

ing full cylinders for empty drums at the customers' homes. Empty drums were returned to our gasoline plants for refilling. The cost of the fuel to the customer was \$12 per drum, or the equivalent of natural gas at \$5.60 per M.c.f.

One drum lasted the average customer about two months for cooking only, about one month for cooking and water heating, and about three weeks for cooking, water heating, and refrigeration combined. Within a few years, we were serving over 2,000 customers scattered over 60 counties in central Texas and southern Oklahoma, and the cost of service had been reduced to \$7 per cylinder or the equivalent of \$3.26 per M.c.f. for natural gas.

In order that larger quantities of gas could be delivered to the customer's premises each time, thereby reducing the transportation and distribution cost sufficiently to make the use of the fuel economical for house heating as well as for cooking, water heating, and refrigeration, Lone Star in 1934 began distribution of butane into 250-gallon company-owned tanks, installed on customers' premises.

Another major reason for this change was to protect our natural gas business for the future in areas surrounding our cities and towns, by offering a fuel service cheap enough for all domestic needs. We found that scores of real estate developers, who previously had applied for natural gas service and were willing to finance the installation of street main extensions throughout their property under a contract to receive a refund for each connected customer, had abandoned this procedure and simply suggested to the purchasers of homes that they install an underground butane tank and select a supplier. We decided, therefore, to contend for this business and to use an above-ground tank, the company to retain ownership of the tank and appurtenances so that when natural gas could be made available to the customer, the butane equipment could simply be moved to the premises of a new applicant.

The above-ground tank also provides for visual inspection, ease of maintenance, and eliminates the possibility of soil erosion. Later, we elected to extend our service into rural areas throughout the counties in which we were rendering butane service; and a few years ago, we

began supplying butane also into certain sized customer-owned underground tanks.

In order that we might not exceed our own company production of butane, we began last year supplying propane in company-owned tanks, installed above ground on customers' premises, and we expect to use this fuel in our future expansion when we inaugurate LP-gas service in additional counties where we render natural gas service. In fact, propane bulk storage, trucks, customer tanks and installation equipment are now on order for three additional counties in which we will start developing business later this year.

The company owns the gas delivered into both propane and butane tanks and the customer sends in the gauge reading monthly and is billed for the fuel he has consumed. This plan also permits us to intelligently route our trucks and make

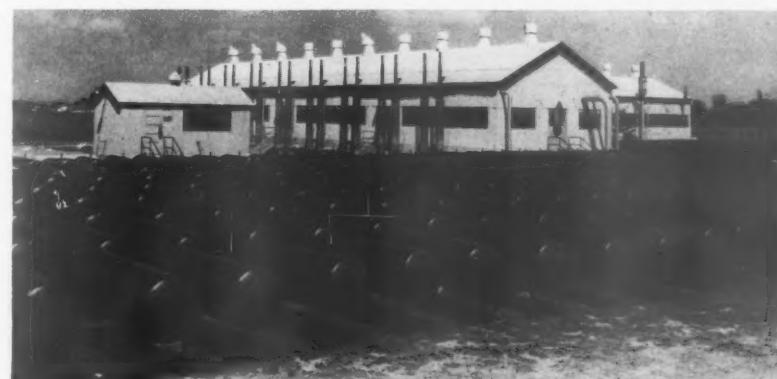
tank deliveries when needed.

In December 1946, the wholesale price of butane and propane began to increase and has continued its upward trend through this past winter. It was necessary for us to increase our LP-gas rates. Currently, we are serving more than 13,000 customers, about 60 percent of whom use company-owned tanks, at rates comparable to natural gas at \$1.50 per M.c.f. for the first five M.c.f., and \$1.20 per M.c.f. for all over five M.c.f. In customer-owned tanks the rate is slightly cheaper. Our average annual customer consumption is about 750 gallons, which is the approximate equivalent of 75,000 cubic feet of natural gas.

As an example of how well we make it possible for future natural gas customers to have an efficient fuel service pending further building development in our city fringe areas, in 1947 over 700 butane customers using company-



One of 54 bulk storage tanks for propane located strategically throughout utility's butane territory. In background is company's pipeline bridge for natural gas, spanning Brazos River near Waco, Texas.



After these customer butane tanks are assembled and painted they are trucked to distribution points

owned tanks were connected to natural gas service after street mains were extended to their premises, and the 700 tanks were reinstalled for other customers beyond the reach of our natural gas lines.

As propane and butane are produced quite uniformly during every month of the year, it must be taken regularly by the distributors and either delivered to customers' tanks or placed in district bulk storage. A very substantial percentage of the use is for residences, schools, churches, and business rooms; and the volume consumed for these purposes during the winter months is many times their summer use, so the storage factor for gases is of paramount importance.

Our experience has proved that the

about during this past winter, were almost entirely due to inadequate storage capacity owned by the users and distributors. No customer of Lone Star was out of gas because of a lack of butane in bulk storage in this area. Service to a few of our customers, who had tanks too small to store their winter supply, was interrupted to some extent as a result of icy and impassable country roads.

To quite some extent the LP-gas business has been developed in this section of the United States by merchandisers of tanks and appliances, who did not assume for their customers, by necessary planning and investments, a responsibility for continuous and dependable service throughout future years. Hundreds of distributors sold and installed tens

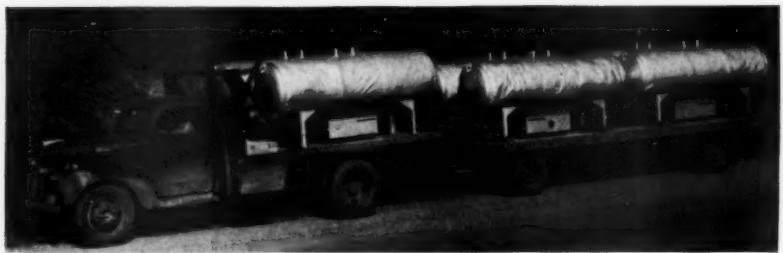
Also, numerous utilities supplying manufactured, natural gas, or mixed gas are finding that it is less expensive to install LP-gas facilities and use this fuel either for augmenting their present supply or for stand-by fuel than it is to install additional manufacturing capacity or pay higher demand charges to the pipeline companies for natural gas supplied during peak demand periods only.

To mention one of the larger, Michigan Consolidated Gas Company has 2,800,000 gallons of propane storage to ease its peak loads and to enrich the heat content of its own gas. Increasingly larger quantities are being used for these purposes, and in addition, there are about 330 small town gas plants using LP-gas exclusively for distribution through the mains. It is estimated that 135 million gallons of LP-gas were used in this field during 1947 (an increase of 55.8 percent over the consumption in 1946).

LP-gas service has a definite relation to the future of the natural gas industry. Complete and uninterrupted service can be rendered to this vast market in the same manner as natural gas companies make provisions to serve their customers. Where the LP-gas distributor furnishes all the service equipment, including the customer tank, he is building up a type of gas business that he can depend on year in and year out.

During the past 20 years the suburban or rural home idea has become highly popular with a substantial percentage of the people, who have been able to earn their living in a nearby town or city with little travel delay, while enjoying most city conveniences. LP-gas has brought to them probably the most desired service of all and its availability has made the suburban or rural home more alluring than ever.

What a pity that gas utilities generally have watched this LP-gas service expand into such a tremendous business apparently without it ever occurring to most of them that here was the same type of business in which they were engaged and that they were permitting rank novices in the gas service business to connect thousands of gas customers in their operating territory, confining the operations of the utilities to the towns and cities (*Continued on page 39*)



A truck load of assembled customer service tanks shown en route to butane distribution points

average residential user must have storage provided in an amount of 500 gallons to carry him through the winter months to prevent peak demands that cannot be met by the refineries, transportation, and delivery equipment during this period. Therefore, if the storage on his premises is less than that amount, the distributor must have the remainder necessary for him in bulk storage.

Recognizing the importance of this district bulk storage, Lone Star has about 1,600,000 gallons capacity scattered throughout our LP-gas distribution areas in 26 counties, and we are adding 400,000 gallons more this year. This will make a total of two million gallons in addition to the more than one million gallons storage at our producing plants. To further alleviate this storage problem, we have for some time been purchasing tanks with a minimum capacity of 500 gallons for installation on customers' premises.

The widespread and acute butane shortages you probably heard of or read

of thousands of butane systems with tanks far too small for the average customer's needs, and then completely saturated their homes with gas appliances. Only a small percent of these distributors provided ample bulk storage for rendering a year-round service.

As both bulk storage and the customers' tanks were under the capacity needed, many distributors were unable to secure and to deliver all the fuel required during the winter months. When their customers complained to them because they were out of fuel, the distributor usually blamed the refiner for their difficulty, when the entire trouble was of their own making. This business cannot be properly handled in any such irresponsible manner.

The tremendous increase in the number of LP-gas users is evidenced by the fact that during 1947 the amount of fuel used for domestic purposes was 32 percent above the previous year, 1946, and over 17 times the amount used in 1938, only ten years ago.

They Like to Pay The Easy Way

Drive-in pay stations and night depository systems are two of most popular plans now used to help customers pay their bills

By HARRY S. HAHN¹

Chairman, Project Committee,
Accounting Section, American Gas
Association, New York, N. Y.



Close-up view of The Ohio Fuel Gas Company's attractive drive-in station for customers at Springfield

HOW can we as utilities make it easier for our customers to pay their bills? Here are several practical methods which, according to the companies using them, pay big dividends in customer good will and prompt payment.

Collection agencies, better known as pay stations, are in use by most utilities located in large cities. These stations are established in convenient neighborhood locations and are operated by bonded individuals, who usually receive from the utility either a flat monthly salary or flat fee for each customer payment.

These authorized collectors receipt the customer's bill—a receipt honored by the utility. In some communities, there are unauthorized collectors whose business it is to pay utility bills for those who request it. In such instances, the utility does not honor the received bill. This is easily understood as the utility cannot be responsible for the character of the merchant, unless authorized. If he absconded the customer would be out the amount of the payment. Also, if this unauthorized collector failed to get the money in on or before the last payment date, the customer would be charged a

penalty, the same as if he were delinquent.

Paying utility bills through local banks has been used long enough by some utilities to have proved its worth. One large company reports that only 75 of its 340,000 customers use this convenience. But paradoxically, a city only 140 miles away with a population of 400,000 has more than 2,200 customers clearing their gas bills through the bank. Neither company had publicized the bank clearance plan.

Some utilities as well as banks have the feeling that such a plan would only cause trouble because of the returned bill marked "insufficient funds." However, the company having 2,200 customers paying through the bank reports such trouble as infinitesimal. The plan appeals to so many of its customers because it relieves them of remembering final due dates and places the responsibility on the company for seeing that bills are presented to their bank for payment each month in time to entitle the customer to the net amount. The utility which uses this plan successfully points out that it is a service offered only to domestic customers and is not practical or needed by large industrial or commercial customers.

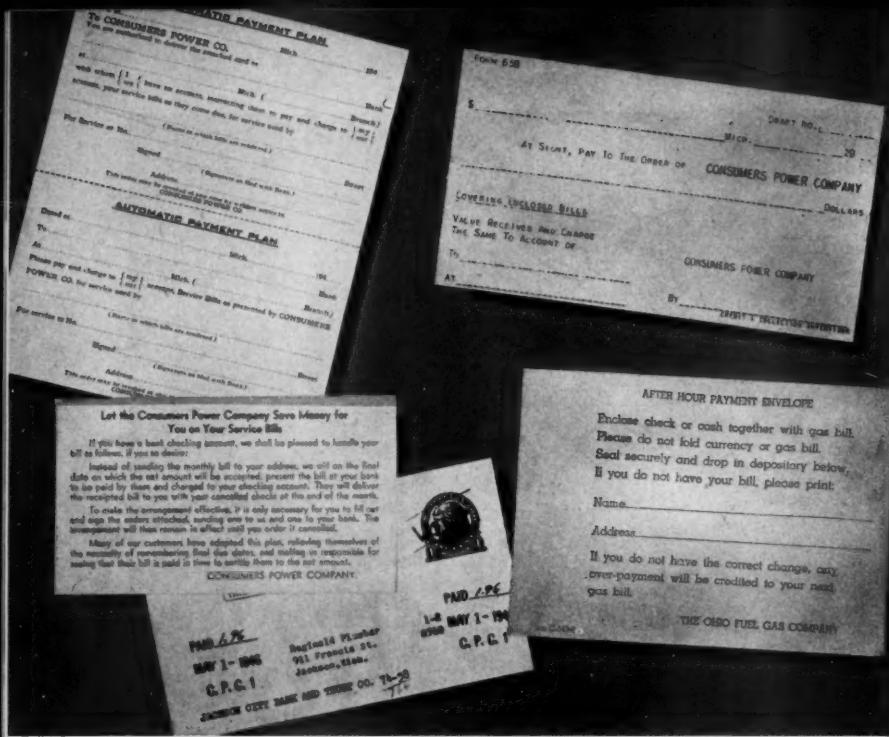
The Consumers Power Co., Jackson,

Mich., now has more than 5,000 customers using the bank clearance plan. The company selected names from its files and sent them a printed explanation of the plan (see Figure 1). In addition, they enclosed applications for their "Automatic Payment Plan" (see Figure 2). This material is sent only to the customer whose account is in a bank in which the company deposits its collections. This can be determined from the customer's checks.

For each such letter mailed, a record is made on the customer's credit history card, "Mailed A.P.P.A. _____ 19____"; the mailing date, of course, is inserted. By checking subsequent prospects for the plan against the credit history file before mailing the letter, the sending of a second letter to the same customer within a period of less than one year will be avoided. For such completed applications as are returned by the customers, entry is made on the credit history cards, indicating acceptance and the date.

Form No. 183, Automatic Payment Plan Application (see Figure 2), is a two-part form, both of which are to be signed by the customer who desires to use the plan, and returned to the credit and collection department. The upper part is retained by the company, and the

¹ The Ohio Fuel Gas Co., Columbus, O. Presented at National Conference of Electric and Gas Utility Accountants, St. Louis, Mo., April 12-14, 1948.



Figures 1-5. Application for automatic payment plan and the contract, a typical bill, a sight draft envelope for collections through banks outside the division city, and a night box envelope

lower part is sent by the company to the customer's bank. The upper part of the application is filed in the special mailing file by district and route, serving as a guide for removing the service bill each month from the regular mailing group, or a special mailing card is made therefrom and the order is filed in the credit and collection department.

When these service bills are removed from the group to be mailed, they are stamped on the address side of the bill, just below the customer's name and address, with customer's bank name, location, and transit number (see Figure 3).

After the bank information has been stamped on the bills, the credit and collection department sorts each day's bills according to banks for each due date. The bills then are placed in a hold file by due dates.

On each due date (on which bills are to be deposited in the bank), the bills in the hold file for that date are removed and stamped "paid" on the address side of both customer's portion of the bill and the stub (see Figure 3). The "paid" stamp shows the following:

Paid (enter net amount)
date
C.P.C. (Div. No.)

the form of draft on the face of the envelope filled out for the total of the bills enclosed. In the lower left corner of the envelope is written the name, location, transit number, and Federal Reserve clearing symbol of the bank at which the bills are payable.

These drafts, after being endorsed for deposit with the regular endorsement stamp, would be listed on the bank deposit slip for the day and deposited in a division city bank for collection. Prior arrangement should be made with one division city bank to handle these collections. Such a bank would give immediate credit for these drafts; therefore, they should not be deposited prior to the due date of the bills enclosed. A register of drafts drawn is kept on a special form for each bank, showing date, draft number, amount, and bank in which deposit was made.

If a case should arise in which a customer does not have sufficient funds on deposit to pay the bill when presented the bank is instructed to notify the company office and the bill is handled in the same manner as "NSF." Care should be taken that the returned receipted bill does not get into the customer's hands unless paid.

In those divisions where the automatic payment plan has not been previously used, the accounting superintendent or credit and collection supervisor contacts the banks and explain the plan and secure their approval before offering it to customers.

Night Depository

Some companies report successful collection results from a night box, with the letter slot placed conveniently on the outside of their buildings. Customers who can't get to the office during daytime hours make use of this arrangement. It is particularly convenient for the person who wishes to pay by cash after office hours. Payment envelopes are placed close to the depository. The customer prints his name on the envelope which carries the message, "If you do not have the correct change, any overpayment will be credited to your next bill." (See Figure 5.) Most of the deposits are cash and only customers who request receipts receive them.

Companies using this plan report that only rarely does a customer claim that money was deposited for which he re-

ceived no credit. Rarely, to our knowledge, has a company allowed a claim.

Does such a plan require extra work for the credit and collection department? No—it is handled in the same way that mail is handled. What percentage of customers take advantage of the night box? The answer to that question brings forth some interesting figures. One large utility which highly endorses the night depository plan gave the list of percentages shown at the end of this article.

You'll note that for the first four years, 1938—1942, the night box had little effect on the number of payments received by mail, but noticeably reduced the number of payments made to the teller. When the neighborhood pay station plan was adopted in 1942, the percentage of customers using the night box started to decrease, as the percentage of people paying in neighborhoods made a sharp increase. However, the percentage paying by mail was only slightly affected. The figures indicate that both the pay station and night depository have an appeal to the customer.

The American Express Company has long been a popular medium for paying utility bills with some customers—taking the place of a checking account for those who find it inconvenient to pay in person. You'll always find individuals who decline checking account service, even though they have adequate funds for deposit. Their reasoning is similar to that of the individuals who refuse charge accounts. It's too easy to write a check—it's too easy to say "charge it." To these people, and to customers who pay their bills by cash but can't get to the office, the American Express plan has been a big help.

Various contracts have been made between the express company and utilities. One arrangement stipulates that the customer pay the sub-agent collecting the bill an additional five cents for each bill tendered. Under this arrangement, there is no charge to the utility company concerned. There are a few cases where the utility company pays the five cent fee, rather than the customer. One or two utilities in the country pay a portion of the five cent fee, and the customer pays the difference. Such variances from the standard American Express contract are rare, however.

Possibly the most modern, most progressive and most unique service for



Figure 6. This Connecticut drive-in with two pay booths was designed to minimize traffic congestion

paying one's utility bill is the drive-in pay station. Imagine the satisfaction your customer would have if he could pay his bill without leaving his car, without getting cold or wet if the weather were unfavorable. As for the downtown parking problem, there isn't any with a drive-in pay station! Such a convenience brings a hearty endorsement not only from the customer but from the police department, too. Double parking and traffic congestion around the utility building are eliminated with this modern pay station.

The United Illuminating Co., New Haven, Conn., leads the way in building a model station on ground adjoining their main building (see Figure 6). In listing the main advantages of this ad-

dition, the company says, "Customers like it because they don't have to struggle with traffic and hunt for parking space. The New Haven Police Department likes it because it does away with traffic snarls and double parking. And United Illuminating likes it—well, because our customers like it!"

With the help of the New Haven Police Department, the company designed the stations (they have two paying booths on the site) so as to minimize possible traffic congestion, both on the company's property and in the adjacent street. There is one-way traffic through the station with the customers proceeding around the island so that they can stop at either of the two booths. At present, one booth takes care of all



Figure 7. Another view of Ohio Fuel Gas drive-in station where authorized collectors give fast service

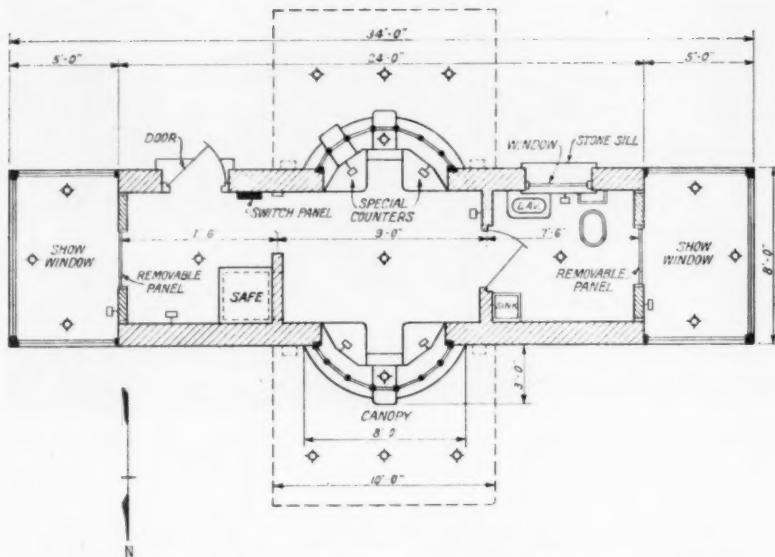


Figure 8. Sketch of The Ohio Fuel Gas Company's de luxe drive-in pay station planned for Columbus, Ohio, which will include customer rest rooms, two display windows and attractive landscaping

traffic. However, when the plan was being formulated, it was thought that two booths would be necessary to take care of volume business.

Each booth space accommodates ten cars at a time, thus almost precluding the possibility of any customer's car having to wait on the sidewalk or in the street. All kinds of vehicles stop by the window—jeeps, motorcycles, trucks, and even a horse and buggy make a regular monthly visit! Pedestrians, too, take advantage of the modern pay booth, and because it is so handy, prefer paying outside in preference to the inside cashier's window.

The United Illuminating Company has some 75,000 customers. Of these, 25,000 pay at outlying pay stations, 50,000 in the office, and 5,000 at the booth. In other words, one out of ten takes advantage of the drive-in pay station. Ordinarily the cashier, snugly enclosed in the little building, is kept busy during his 8:30 A.M. to 5:00 P.M. stretch. Except during rush hours, he takes payments, makes duplicate bills, answers inquiries about bills, using the telephone to other departments in the main building if necessary. However, he does not take service applications or complaints. During the busy part of the day, he takes payments from automobiles only—not from pedestrians.

The New Haven Company, pioneer-

ing in this new customer service, reports the plan has been highly successful. Only one minor problem remains to be solved—once in a while, trucks will get lodged under the projecting roof designed for weather protection.

Hearing about United Illuminating's successful plan, The Ohio Fuel Gas Co., Springfield, O., included a drive-in pay station when it built its handsome new building last year. The structure is somewhat different from New Haven's, however. A drive-in booth was built in one corner of the building adjacent to a vacant lot. This property provides ample

room for employees' cars and customers' driveway (see Figure 7).

The station was opened March 1, without any publicity and was immediately accepted by a large portion of Springfield's 22,500 customers. The first week the booth was opened, 605 customers paid their bills at the outside window. The second week, 785 payments were received; 815 the third week; 972 the fourth week, making a total of 3,177 for the month. Keep in mind that this accomplishment was without a word of publicity.

Since then, public acceptance of Ohio Fuel's drive-in pay station has been remarkable. The following chart proves its popularity:

April	— 4682 bills
May	— 4252 "
June	— 3593 "
July	— 4748 "
August	— 4525 "
September	— 4857 "
October	— 4887 "
November	— 4385 "

Springfield's drive-in is strictly one-way. Several times, drivers have failed to observe the "Exit" signs, causing a momentary tie-up. In such instances, the attractive cashier behind the window explains why the customer must observe the one-way rule, and how it is to his advantage, as he does not have to slide over or get out of his car to reach the teller's window. Fortunately, the pay station is located on a comparatively inactive street, keeping traffic hazards to the minimum. (*Continued on page 40*)

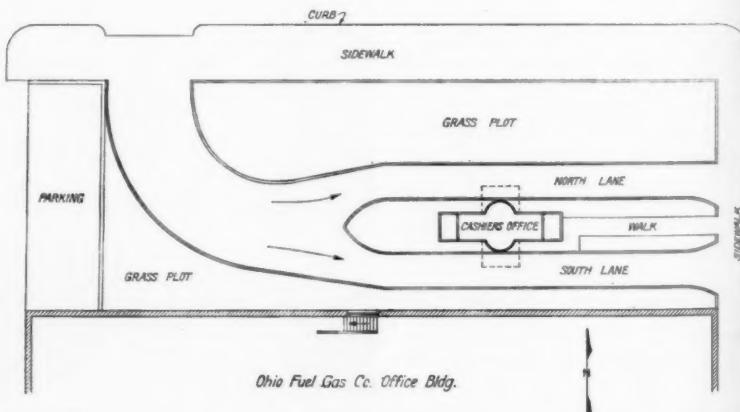


Figure 9. Columbus station will have two driveways running in the same direction from a busy street.

Range Design Technique

Domestic gas study develops a mathematical relationship between main factors affecting separate high broiler design

By H. J. HENSE

American Gas Association
Testing Laboratories

THE many individual design variations which, when taken together, add up to good gas range design are so interrelated that it is no easy task to employ them to best advantage in any specific situation. Two new research bulletins, however, contain a wealth of technical information which should greatly enhance design technique.

Research Bulletin 47 is devoted to design features affecting oven performance and Research Bulletin 48 to a study of separate high broilers and the use of radians. The design of broilers will be reviewed at this time with subsequent articles on the other two subjects. All three studies were conducted as separate projects under the guidance of the Technical Advisory Group for Domestic Gas Cooking Research, American Gas Association Committee on Domestic Gas Research.

Three major factors were found to have a profound influence on broiler de-

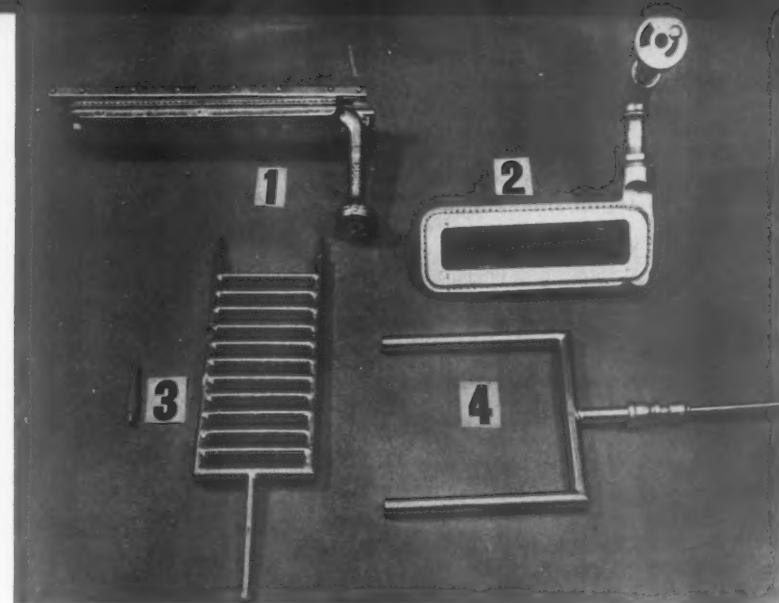


Figure 5. Burner 1, rectangular, partially aerated type: $T = -\frac{163}{A} + 3.4B + 3.6h + 17.3$

$$\text{Burner 2, loop partially aerated type: } T = -\frac{89.5}{A} + 0.88 + 1.2h + 27.3$$

$$\text{Burner 3, blue flame, low aerated type: } T = -\frac{143}{A} + 5.3B + 1.8h + 10.6$$

$$\text{Burner 4, yellow flame, non-aerated type: } T = -\frac{193}{A} + 6.1B + 3.1h + 10$$

sign. A mathematical relationship correlating them was experimentally developed for determining optimum performance. The exact form of this relationship depends on type and design of the burner utilized. These major factors are illustrated in Figure 1 with the mathematical symbol for each indicated. They are:

- A—Effective flue outlet area (square inches)
- B—Distance between burner ports and top of broiler (inches)
- h—Height of flue outlet above burner ports (inches).

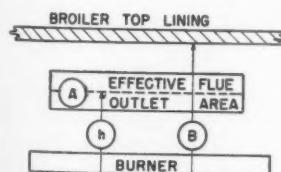
Factor A, effective flue outlet area, may be located below or above the broiler top lining. In practice the effective flue outlet area may be taken as the minimum area located between the inlet and flue collector. Consequently, the centerline of this area is used in measuring Factor h, the height of this area above burner ports.

The three factors were written into an empirical general equation which is solved for preheating time or T. This T is defined as the time necessary for the broiler to reach 530 degrees F above room temperature, expressed in minutes. Preheating time was employed as a measure since it was found not only to

be of great importance, but generally a criterion of other performance characteristics such as maintaining rate and heat distribution.

The general effect on preheating time of varying each design factor individually is indicated in Figures 2, 3 and 4. It will be noted that the data presented are for four different burners and that all are rated at 14,000 B.t.u. per hour gas input, a constant employed throughout the study. The burners (see Figure 5) consist of two burners of contemporary design and two experimental non-aerated burners. Burner 1 is a conventional rectangular type. Burner 2 is a conventional loop type. Both are partially aerated. Burner 3 is a blue-flame type injecting less than 15 percent primary air. Burner 4 is a luminous flame, non-aerated type.

The separate effect of each design factor for each burner on preheating time is indicated in the three charts. However they do not necessarily indicate optimum performance nor desirable broiler design conditions since all three factors have to be correlated for that purpose by solving for T. The values used for the two fixed factors of each chart are those that eliminate them as an influence upon performance in order to show the magnitude of the ef-



MAJOR FACTORS OF BROILER DESIGN:
A - FLUE AREA IN SQ. INCHES
h - HEIGHT OF CENTERLINE OF FLUE OUTLET ABOVE BURNER PORTS IN INCHES
B - DISTANCE, PORTS TO BROILER TOP LINING IN INCHES

Figure 1

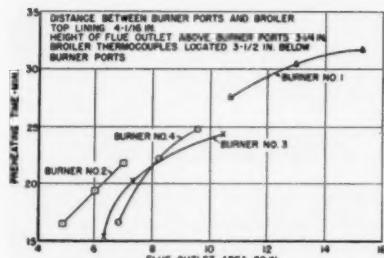


Figure 2. Effect of Factor A—size of flue outlet—on preheating time of experimental broiler with burners rated at 14,000 B.t.u. per hour

fect of the variable factor in these instances.

Optimum broiler performance consistent with good combustion, as observed for all four burners in an experimental broiler, is given in Table 1. The three heat distribution zones indicated in the table are as follows: Zone 1—less than 350 F above room temperature; Zone 2—350-450 F above room tem-

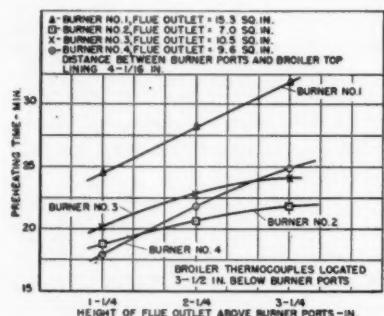


Figure 3. Effect of Factor h—height of flue outlet above burner ports—on preheating time using burners rated at 14,000 B.t.u. per hour

perature; Zone 3—450 F or more above room temperature.

The general equation developed contained several mathematical constants which provided for differences in the type of burner employed. Consequently four separate equations for the four burners investigated were derived, employing different numerical values for the constants in each instance. Figure 5 shows the equation for each burner based upon an input rating of 14,000 B.t.u. per hour and with the plane of the thermocouples which were used to measure broiler temperatures located 3½ inches below burner ports.

One particularly noteworthy difference between these four specific equations is the value of the constant used with Factor B, the distance between burner ports and top of broiler compartment. It is noted that this constant is substantially larger for Burners 3 and 4 than it is for Burners 1 and 2, indicating a greater effect of burner location with respect to the top of the compartment. In interpreting the relationships it is evident that to obtain the shortest preheating time possible, the values of all three major factors should be reduced to a minimum consistent with good combustion. If temperatures are measured at vertical distances other than the 3½ inch distance at which thermocouples were placed from burner ports, the general relationship expressed would still be valid but the values of the constants would need to be redetermined.

The equations developed were found

to predict preheating times very close to those actually observed in an experimental broiler. Likewise calculated time corresponded closely to observed time when burners of similar type were selected at random and installed in a temporary high broiler range. Before a single equation for universal application with various types of burners can be established, however, it will be necessary to determine and correlate those features of burner design which produce variations in broiler performance.

The present work adds a valuable chapter to earlier studies of a pioneering nature and also defines some of the major problems worthy of further investigation. It is considered a major step towards achievement of important ultimate objectives, particularly the development of a single mathematical expression for predicting broiler performance.

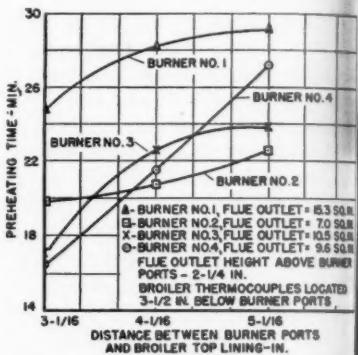


Figure 4. Effect of Factor B—distance between burner ports and broiler top lining—on preheating time, burners rated at 14,000 B.t.u./hr.

Burner No.	T, Preheating Time, Min.*	Maintaining Gas Rate Btu/Hr†	Broiler Heat Distribution, Sq. In.			A, Flue Outlet Area, Sq. In.	h, Height of Flue Outlet Above Burner Ports, In.	B, Distance Between Burner Ports and Top of Broiler Compartment, In.
			Zone 1	Zone 2	Zone 3			
1	16.2	7,367	40.0	50.0	142.0	13.0	1 1/4	2 1/16
2	17.7	7,360	151.0	36.0	45.0	6.0	2 1/4	3 1/16
3	16.2	9,550	93.0	27.0	112.0	8.6	2 1/4	3 1/16
4	11.7	9,300	32.5	53.5	146.0	6.8	2 1/4	3 1/16

*Time required for broiler to attain a temperature 530 F above room temperature with broiler thermocouples located 3½ in. below burner ports.

†Gas input rate required to maintain broiler temperature at 530 F above room temperature.

Home Service Gets The New Look

Customers' changing needs and conditions have helped home service to develop a subtle approach to more gracious living

By IRENE L. MUNTZ

Home Service Director
Rochester Gas & Electric Co.,
Rochester, N. Y.



I. L. Muntz

THE New Look at first glance may seem old-fashioned, with the rustling petticoat, frills, flowers and laces. But a second glance makes you aware that here is a subtle approach to a new way of life. A recent Lord

and Taylor advertisement in *The New York Times* headlines it as "Manners are changing fashion."

The advertisement goes on to say that "it is the gracious way of life that is changing the way you look," and may we say, it is this same "gracious way of life" that is giving home service the opportunity for that new look. Just as "manners are changing fashion," customers are changing home service.

Our customers are confronted with many new needs and many changing conditions, just as is business. A recent survey of market potentials made by the J. Walter Thompson Agency indicates that the major job ahead for all business is one of selling and consumer education. As the satisfied customer is the end result of all home service activities, a flexible program develops when we meet these needs and points the way to new activities.

Every year two million boys and girls grow up, marry, and establish one million new homes. The needs of this new group of customers range from the in-

formation required by the bride to cook her first meal, to the acquisition of equipment and a new home. We might call this a base load. This continual turnover of new families makes it possible to have a continuous thread of basic information underlining our whole program.

One of the greatest changes that has occurred in the home is the change in household techniques. This is due somewhat to the new products which have appeared on the market since the war. A more immediate effect has been the high cost of living.

As one of our newspaper friends commented when she asked for a food article for her women's page: "The high cost of living has been and continues to be the biggest news."

Because of this, families must find some means of cutting corners and stretching the budget. Generally, it is the food budget that is first to be cut. Housewives may have to do some things at home that they might otherwise have done for them—baking for instance. The appearance on the market of so many prepared mixes was timed perfectly. They appeared when many women were just beginning to feel the need to do something about this baking problem and yet didn't have as much knowledge as they needed to do a good job.

The prepared mix is practically fool proof and gives these new cooks the assurance they need to begin baking at home. Home service takes advantage of this new impetus in home baking to encourage the women to try other foods that cannot be bought in packages, thus building up her enthusiasm and whetting her appetite for new equipment that will help her do a better job of cooking. For many, home baked food is a brand new sensation. I have always felt that one of the factors that has weakened the home is the lack of the

homemade touch in food. That may sound far-fetched but it all goes to make up this thing we call our way of life.

There has also been a tremendous change in cooking procedures. For instance, many women are using frozen foods. The new gas refrigerators with frozen food storage space have encouraged the women to use these foods by providing storage space for them. Now working wives are able to bring to the table, complete well-planned nutritious meals in no more time than it used to take to open a few cans or reheat something from the corner delicatessen. The use of the pressure saucepan has encouraged the homemaker to make some of those time-consuming favorites—soups, stews, pot roasts—because it does save time.

All the day dreaming we did during the war years is paying off in the fact that women really want all the automatic equipment they can get. There is one important point that was left out in our great enthusiasm to sell automatic equipment. This is the fact that for the homemaker to get the best use out of automatic equipment she must use it as the manufacturer designed it to be used. Unfortunately she is not always prepared for the complete change in habits that this new equipment makes necessary.

As more of this automatic equipment is sold—washers, dishwashers and clock-



Home service has an "in" with the housewife

Presented at A. G. A. Eastern Natural Gas Regional Sales Conference in Pittsburgh, Pa., March 10, 1948.

controlled ranges—it is apparent that a more thorough job of educating the customer in its use must be done. One of our basic activities, the home call, is one of our strongest tools in selling the customer on the use of her equipment.

We know from past experience that a good percentage of the time spent on a home call is devoted to keeping the customer sold on the new equipment she has purchased. This should be recognized as an important part of the home call job, and ample time should be planned for it.

In an analysis of home calls made recently, it was found that it takes just about an hour to do a complete call on an automatic range. There was a time when the home call was considered a friendly gesture. It becomes more apparent every day that there can be nothing superficial and that nothing can be taken for granted on a good home call.

Of necessity, home service must adjust its program in line with these changing conditions if it is to do the job for the company that is expected of it. We in home service know that plenty of hot water—and I do mean hot—is a requirement for the satisfactory operation of the washer and dishwasher. It just naturally follows that in selling these appliances and in their use, the need for hot water must be sold. When a woman thinks about buying a dishwasher, she probably wouldn't think of an automatic gas water heater in connection with it. And the salesman doesn't always find it convenient to mention this need. Home service has the perfect opportunity to impress on a woman's mind the necessity of the one with the other.

It is an important part of the home call to take the temperature of the water being used. If the water is not hot enough, the necessity is pointed out for setting up the temperature control of the water heater, or for bringing to the attention of the homemaker the inadequacies of the old water heater.

Home service can be the center of activity for consumer information. It is a sad commentary on our modern way of life that so many customers want help in making up their mind what they will buy. They bring in their questions: "Should I buy a gas or an electric range?" "Should I buy an automatic washer?"

Certainly the utility has a responsi-

bility in providing an authentic source of information. Past experience with customers indicates that their need for information about quality merchandise has never been so great. Many learned through sad experience during the war years that cheap merchandise is never a bargain. Young people who are buying their first equipment need so badly to have help at this point.

Home service is called on many times to help plan menus for church suppers, grange meetings, and other community activities. It is quite an ordeal for a woman who is not accustomed to feeding several hundred at one time. If she can turn to the home service department for help, right away there is established a feeling that here indeed is a friend in need.

Make New Contacts

It is perfectly natural that these same people will turn to the home service department and the utility and take advantage of the kitchen planning service that is available, now that so many churches and other organizations are doing over their kitchens. This is an excellent means of making contacts that will help get modern household equipment into these kitchens where a great many people do volunteer work.

A new development that is being watched with a great deal of interest in our locality is an effort on the part of some state agencies to encourage the development of handicrafts in the home as a means of building up small business. Craft and cookery guilds have been established, and I suppose it is only natural that they should turn to the home service department of the utility to head up the foods committee. This committee establishes standards and helps the women to develop their grandmother's recipes into food products that will sell. We hope that this may be another way of reviving food fairs, cookie contests and recipe contests that will stimulate more cooking in the home.

The more we know of our customers' needs and the more selling that is done by our company or through dealers, the more we realize that it is not enough for us to know just our own story. We need to know what the salesman is telling the customer. We have to know what the service man is doing for the customer.

One of the best ways we can render service to the customer is to put at the disposal of the salesman the knowledge we have of the appliances and what they will do, as well as what we know about our customers. We are facing a highly competitive period in selling, and it becomes necessary for home service to explore all the possibilities of sales, sales techniques and presentations so that we may be fully aware of their possibilities in the furthering of our own program.

Home service is not expected to sign customers on the dotted line, but there are many ways in which home service has fitted into the sales picture. Every good salesman knows that he must know his product. It is up to home service to do more work with the clock-controlled range so that we can show the customer what this range will actually do for her.

It is up to home service to know laundry procedures thoroughly, work with new detergents and new fabrics, and find out the effect of hot water—or lack of it—on the efficiency of the automatic washer and dishwasher.

The salesman is finding it helps him to use the home call as a sales tool. Most customers want to get all the help they can on the care, use and operation of this beautiful piece of new equipment that they have waited so long to have.

Being a part of the sales department and working very closely with salesmen, we realize that the job of satisfying the customer is done more effectively when there is closer contact with the service department. Many times home service can be the clearing house for difficult questions between the sales and service departments when it's a matter of satisfying the customer.

We all know that food has a mellowing effect, and it has been found that a good way to solve some of these problems is to discuss them together over a luncheon table with the sales, service and home service. This has been an effective means of coordinating the story given to the customer. We strongly recommend that sales, service and home service get together twice a year for a discussion of mutual problems.

The time has come when home service can render a valuable service to some of our commercial and industrial customers. Range and refrigerator manufacturers have many times asked for help in their plans for new designs and

changes in equipment. This activity can be expanded to include many local manufacturers of food products and other products used in the home. These manufacturers can be made aware—if not so already—of the “in” that home service has with the housewife.

In one month, a home service staff was called on for ideas about a new thermometer for home freezers, for marketing a mix for homemade jelly, bettering a canned French fried onion product, and for introducing a new liquid soap. In the latter case, the manufacturer was amazed to know that women have a strong feeling against liquid soap and that they want suds from soap. Many

times because of the interest created through these contacts, whole new groups of customers are reached, either through the manufacturer's own organization or through his customers.

The basic program of home service is better than it ever was. Home calls, demonstrations, telephone service, salesmen's training classes, work with schools, club programs, employee classes, domestic service classes, and the thousand and one activities that home service can and does indulge in at appropriate times. However, these activities have acquired the New Look.

Demonstrations are turned into skits, we have new settings for our demonstra-

tions because we have brand new kitchens. Audience participation shows are used, as well as audio-visual aids. Having acquired over the years the know-how in arranging programs, home service should never be afraid to try the new and unusual in making programs more effective. However, it is not necessary to go too far afield in our efforts toward newness. Women still want demonstrations, and when we can get 200 women out to a demonstration on a stormy night, we can find no better audience to hear our story and see the job that modern appliances can do for them.

Because home service has always used food as a tool in their work, there are many people who look upon food and recipe testing as the end of home service rather than as a means to an end. True, a person who is going to do this work must have a knowledge of food, what it will do and how it can be used, but there are many other requirements of much greater significance. What we are really in need of these days is people with vision, imagination, the ability to take an idea and develop it into a useable program, a feeling of responsibility, ability to get along with people, and a genuine interest in all phases of the work.

Every program must have objectives. The home service director must know what management wants. She must find where her efforts are needed by her awareness of problems facing her company.

The most important single unit in this world has always been and must continue to be the family. Probably all of our capabilities to be happy, to live peacefully with other people, have their beginnings in the home. One of the most important jobs in the world is the job of homemaking.

The utility's service is unique in the fact that the utility enters every home. It has the means at its disposal to contribute to a higher standard of living for all its customers. We know that the general wage scale is higher now than it has ever been, but many people who have had wage increases have not yet adopted the living standard of the group they have been promoted to. We can make it possible through the service we render for all of our customers to have a more gracious way of life. This is the kind of job of which every home service department wants to be a part.

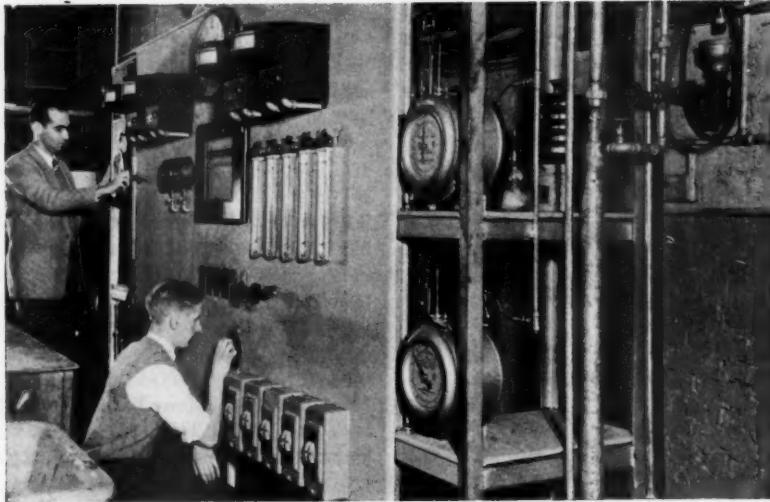
Portland Makes New Friends for Gas



Typical of 267 school room demonstrations made by Portland Gas & Coke Company's home service department during the year is this one by Frances Fricker at the Chemewa Indian School, Salem, Ore., one of the nation's few remaining boarding schools for Indian children of grade and high school ages.



Thanks to Braille-like dots devised for oven control and timer by Harvey Stanton, Portland Gas & Coke Co., home economics classes at Oregon State School for the Blind make full use of this new gas range. Frances Fricker, home service, explains details to fifth grader as superintendent and teacher watch.



View of control panel for cracking furnace in new oil laboratory at the Institute of Gas Technology

Research at Work

Completion of modern oil laboratory and high speed gas heating report are latest steps in utilization, gas production research

ONE of the most modern and most complete oil testing laboratories in the gas industry has been completed at the Institute of Gas Technology, Chicago, Ill., under American Gas Association Project CPR-23, and work on the initial phase of training personnel and testing apparatus is well started.

This project has as its objective, the study of the relationship of the physical and chemical characteristics of selected oils with enriching value, and quality and quantity of liquid and gaseous products from thermal cracking. The current study is the logical outcome of two preceding projects CPR-21 under which the requirements, design, and cost of such a laboratory were determined with the advice of acknowledged experts, followed by Project CPR-22 under which the findings of the first step were realized.

Current plans contemplate the selection of representative carburetted oils which will then be subjected to a series of standard enriching-value thermal cracking tests. The physical and chemical properties of the oil, and of the liquid and gaseous cracking products will be determined by standard and special tests. Correlation of the physical and chemical properties with the enriching value, and properties of the liquid and gaseous products will then be made, as far as practicable.

Perhaps the most important single piece of apparatus in the new testing laboratory, and certainly the most interesting, is the oil cracking equipment, which consists of a three-inch stainless steel tube approximately five feet long contained in an electrically heated furnace. The heating section is divided into four zones, each about ten inches long and individually controlled.

Suitable arrangements have been made so that the cracking may take place in an atmosphere of hydrogen, blue gas, steam, etc., or any mixture of these. A unique feature of the furnace is the means of oil injection. Instead of dropping liquid oil onto a silica or other vaporizing surface the oil in this unit is sprayed in by means of a low pressure nozzle. This has been very effective and permits runs of sufficient length to produce tar samples of the volume required for analyses.

This project is especially timely because of the shift in the generally available gas oils toward partially cracked residuum oils of greater thermal resistance, lower B.t.u. value and higher Conradson Carbon. The work of the oil laboratory will develop a better understanding of the effect of carburetted oil quality and of the quality of the gaseous and liquid products made from these oils.

NECESSITY for increased production to meet wartime requirements has greatly accelerated the trend toward high speed heating which has been existent for many years.

It has become evident that in many situations heat treatment must be accomplished by establishing an extremely high heat gradient between the heat source and the work piece in order to obtain the desired results, and this realization has led to the development of the techniques known as flame hardening and high speed heating which have been recently presented by several manufacturers of industrial gas utilization equipment.

The Committee on Industrial and Commercial Gas Research, American Gas Association, Ralph L. Manier, Central New York Power Corp., Syracuse, N. Y., desire to summarize such information as may be available on these new techniques, to promote fundamental research which will be helpful to the manufacturers of applicable equipment and to implement concerted action by the gas industry which will assure progress in the science of gas utilization commensurate with that which may take place in industrial processing operations.

In furtherance of that program, the committee engaged Battelle Memorial Institute, Columbus, O., to investigate the subject of high speed heating.

Highly competent personnel of Battelle have diligently applied their efforts to this assignment and have submitted a comprehensive report which has recently been published by the Association in the form of a technical bulletin entitled "Induction Heating in Relation to Industrial Gas Heating."

Through this source there is now available to all interested persons an analysis of the potential market for gas in the field of high speed heating, a detailed description of the practice and equipment used in both indirect and direct methods of heating, and a metallurgical and economic appraisal of the techniques of high speed heating.

As a result of this study the authors of the report have been able to suggest several specific research projects which are now engaging the attention of the A. G. A. Committee on Industrial and Commercial Research and which would add materially to present knowledge of the reactions of metals when subjected to high temperature gradient heat treatment.

* Price \$1.00 a copy, obtainable from the American Gas Association, 420 Lexington Ave., New York 17, N. Y.



ACCOUNTING SECTION

JOHN A. WILLIAMS, Chairman

L. E. REYNOLDS, Vice-Chairman

WALTER E. CAINE, Secretary

Accountants View New Horizons



Headliners: (l. to r.) H. B. Hardwick, E. E. I. chairman; John A. Williams, A. G. A. chairman, L. E. Reynolds, A. G. A. vice-chairman; R. W. Hendee, A. G. A. vice-president; Allan Mitchell, E. E. I. vice-chr.

MANY new and improved ways in which the trained accounting mind can supplement the success of utility executives were described and discussed in St. Louis, Mo., April 12-14, at the largest and one of the most informative accounting conferences ever held.

Sponsored jointly by the American Gas Association and the Edison Electric Institute, the three-day meeting attracted delegates from 40 states, the District of Columbia and Canada. Accounting department heads from Washington University, St. Louis, were present at the conference as A.G.A. guests and displayed lively in-

terest in the proceedings.

Conference Co-Chairmen John A. Williams, Niagara Hudson Power Corp., Syracuse, N. Y., and H. B. Hardwick, Consumers Power Co., Jackson, Mich., and their committees had selected St. Louis as the meeting site so that utility men in the southwest who sometimes are unable to reach more distant events could attend this year's conference. The record attendance was 671 persons.

An outstanding attraction of the conference was the large accounting machine exhibit which occupied the entire mezzanine floor of the Jefferson Hotel. Every

major leader in the accounting equipment manufacturing field was represented.

On Monday afternoon, R. W. Otto, president, The Laclede Gas Light Co., St. Louis, delivered the keynote of the general sessions. "The vital necessity and importance of proper accounting is the foundation of our business," he declared. "The accountant will be increasingly called upon to furnish the records of the past and to visualize the problems of the future as a basis on which the executive may make forward plans. . . . Whether we be accounting engineers, or whatever, we all have another great responsibility apart from our immediate jobs, and that is to let the public know us as we know ourselves."

Edward Hopkinson, Jr., senior partner, Drexel and Co., Philadelphia, Pa., and a member of President Truman's Advisory Committee on the Conduct and Financing of U. S. Foreign Trade, presented pointers of wide interest to utility managements in a talk entitled "Utility Financing in Tomorrow's Money Market."

Indicated governmental policy, he declared, means that utility companies with sound capital structures should be able to



A. G. A. Accounting Section Managing Committee and guests at St. Louis: (left to right around the table) A. A. Cullinan, J. E. King, W. D. Virtue, John A. Williams, Section chairman; L. L. Dyer, J. E. Gray, D. W. Peterson,

Glenn Ray, L. E. Reynolds, Section vice-chairman; G. A. Wilson, A. W. Fyfe, J. C. Cross, C. W. Tobey, H. J. Rustad, E. R. Eberle, E. N. Keller, H. E. Cliff, Frank Freer, Jr., O. K. Boyd. Plans for 1949 were also discussed.



Customer collections luncheon covered reports on residential deposits and "pet" collection procedures



Head of table at customer relations luncheon, P. E. Ewers, Detroit, and J. C. Faris, St. Louis, presiding



Committee luncheon and three half-day meetings were held on accounting materials and supplies



One of three half-day meetings held on taxation accounting, Frank Freer, Jr., Newark, N. J., presiding

finance the appropriate portion of their new capital requirements by conventional type 25-30 year bonds at around present interest levels.

A report delivered by J. E. King, Consolidated Edison Co. of New York, Inc., showed that a formalized rating program is the best means to efficiently determine the ability and qualifications of accounting department and other officer employees. The study was completed by the Joint Project Committee on Employee Relations of which Mr. King and E. R. Eberle, Public Service Electric & Gas Co., Newark, N. J., are co-chairmen.

"Formalized plans are not restricted to the determination of the employees for promotion," Mr. King said. "You can use them for appraising new employees, for granting organized salary increases for downgrading, suspensions, lay-offs, for employee commendations, and for employee performance."

He showed that in the competent administration of such a rating plan three factors are necessary. First, everyone connected with the plan should be thoroughly briefed in its purpose. Second, every supervisor who rates an employee should be trained in the examination and use of the plan. Third, ratings should be honestly developed and used only for the purpose for which they were intended.

Alfred Fleishman, customer relations counselor, Union Electric Co. of Missouri, one of the two host companies at the conference, showed in a fast-moving talk how the gas and electric industries should conduct their customer relations in order to maintain and promote the fundamental friendship and good will of the public.

Customer relations today, he stated, is one of the most important phases of a company's total public relations thinking. This is particularly true in relation to the public utilities, because "you can't pick or choose your gas or electric company."

A tremendous amount of complete and



W. R. Clement, Newark, N. J., reporting to the general accounting luncheon on status of the "Accounting Developments Service," which will be issued soon as a regular quarterly service

C. W. Tobey, The East Ohio Gas Co., Cleveland,
dr., A. G. A. Customer Collections Committee



General sessions speakers: (l. to r.) Alfred Fleishman, public relations counselor; J. E. King, New York;
Edward Hopkinson, Jr., Philadelphia, nationally known financier, and Martin R. Gainsbrugh, New York



Post-chairmen A. G. A. Accounting Section at the conference: (left to right) E. N. Keller, Philadelphia;
Leith V. Watkins, New York; L. L. Dyer, Dallas, Texas, and H. E. Cliff, Newark, New Jersey

G. B. Herr and George I. Simpson, chairmen,
Materials and Supplies, and Customer Accounting

wholehearted cooperation throughout the entire company organization is needed. Mr. Fleishman showed, in order to establish a good workable customer relations program.

Such a program will "Know many things about the customers, and will want to know more. What are his particular habits, how can they be improved, what are the factors which make him do business with us, what are the factors which drive him away, do we consider his convenience or just his pocketbook, how can we individualize our relationship with him?"

"We know," he added, "that a customer judges an organization not only as a seller of commodities, but also as a neighbor and a citizen, and it goes without saying that communities, like most of us individuals, want to keep good neighbors and get rid of the bad ones."

The next general sessions speaker, Martin R. Gainsbrugh, chief economist, National Industrial Conference Board, and a well-known author in the economics field, delivered an inspiring talk on the "Decline of Property Rights," with a stinging attack on "some of the communistic measures we have accepted too long without challenge."

He called on all disciples of capitalism for renewed faith and hope.

"Its (capitalism's) enemies have the faith of all reformers," he pointed out, "their proposals are always affirmative; they promise much, much even though they can point to no satisfactory record of performance anywhere in the world.

"The defenders of capitalism are more aware of its defects than of its virtues. Its long-term performance is unmatched, but the alien philosophy has undermined the

confidence of many. They are faint-hearted in its defense lest they be proved wrong by the next bigger and better depression. In too many minds the seeds of disaster are already present. In too few others there can be found a view that capitalism contains within itself the same seeds of expansion as in the past century.

"What is needed is a favorable environment for further capital accumulation and a social and legislative climate that will again make possible accumulation of pri-



Chairmen and coordinators: (left to right) Frank Freer, Jr., and E. R. Eberle, Public Service Electric & Gas Co.; A. W. Fife, Consolidated Edison Co. of New York, Inc.; Glenn Ray, Indianapolis Power & Light Co.; O. K. Boyd, Consolidated Gas Electric Light & Power Co. of Baltimore; J. C. Cross, Hope Natural Gas Co.; A. A. Cullinan, Columbia Engineering Corp., and H. J. Rustad, Equitable Gas Company

vate property and a greater degree of voluntary, personal control over its use and disposition."

Conference delegates turned out in full force for the dinner Tuesday evening. Robert W. Hende, A. G. A. first vice-president, extended greetings from the Association and emphasized the importance of accounting to all branches of the gas industry.

To top the evening, Clayton Rand, publisher, *The Dixie Press* and *The Dixie Guide*, Gulfport, Miss., took the topic "Will America Keep to the Right?" and developed one of the most humorous after-dinner speeches ever heard at an A. G. A. meeting.

Several of the epigrams which drew the greatest applause were:

"The great American malady is the overeducation of the unintelligent."

"How fortunate we are as a people that we aren't getting all the government we are paying for."

The Tuesday morning program was devoted to a wide variety of parallel sessions of the General Accounting Activities and the Customer Accounting Activities Groups.

J. G. Hoffman, Consolidated Gas Electric Light and Power Co. of Baltimore, Baltimore, Md., was opening speaker at the General Accounting Activities meeting, presided over by A. A. Cullman, Columbia Engineering Corp., New York, N. Y., and O. K. Boyd, also of the Baltimore Company.

Mr. Hoffman's subject was a careful report analyzing the pros and cons of micro-filming in relation to the retention of records.

"Consult Your Tax Man," was the



B. S. Rodey, Jr. (left) and J. K. Polk, Consolidated Edison Co. of New York, Inc., chatting during an intermission at St. Louis; (right) J. T. McKay, New Orleans Public Service Inc., New Orleans, Louisiana

topic covered by Everett C. Johnson, partner, Arthur Andersen and Co., Chicago, Ill., in a forceful presentation.

The time to call in a tax man, Mr. Johnson declared, is when the transaction is first being discussed by the management of the corporation. He must also be included in the planning and recording of all transactions from then on in order to do a competent, thorough job.

Leith V. Watkins, Panhandle Eastern Pipe Line Co., New York, as the next speaker "shot darts to provoke some new thinking" on "The Troublesome Problem of Depreciation."

The problem, Mr. Watkins asserted, "is how to remove this monster depreciation from the daily lives of accountants, young and old."

The challenge, he continued, is "are we going to face this problem of high replacement costs before it is too late, or are we going to take our medicine in the future?"

He advised that valuable information

on this controversial subject can be gleaned from two recent reports of the National Industrial Conference Board.

Weston Smith, vice-president, *Financial World*, New York, followed Mr. Watkins with an interesting examination of corporation annual reports, a subject which he is well-qualified to expound as the originator of *Financial World's* nationally known annual report contests.

Mr. Smith cited a trend toward improvement of annual reports as substantial evidence that these documents have become "a dynamic force in constructive public relations, and a medium fostering a wholesome appreciation of industry and our economic system among stockholders, employees and customers, as well as in communities where products or services originate."

In 1946 alone 1,750 brochures, booklets, folders and circulars entered the contest and, Mr. Smith said, the public utilities as a group showed the most progress.

Conferees turned out in force for Tuesday evening dinner (below). Clayton Rand, Gulfport, Miss., gave humorous talk "Will America Keep to the Right?"



At this point the meeting was adjourned for lunch. The papers of A. J. Mayotte and C. J. Wardell, which had been scheduled for the morning session, were delivered or discussed at subsequent meetings.

A. W. Fyfe, Consolidated Edison Co. of New York, Inc., and Glenn Ray, Indianapolis Power and Light Co., presided at the Tuesday morning Customer Accounting Activities meeting.

J. C. Faris, Union Electric Co. of Missouri as lead-off speaker, reported on a review of collection practices from a standpoint of cost, paying particular attention to means of placing new procedure into effect.

"Perhaps no phase of our business can have a quicker or more harmful effect on the public than poorly administered credit practices," he concluded.

An interim report on billing the fuel adjustment in rates, another highly important subject, was presented by H. F. Quad, Public Service Electric and Gas Co., and following that a paper on a training program and manual for meter readers by R. T. Dudrear, Philadelphia Electric Company.

The latter paper contained the results of a recent survey providing basic information to enable companies to study their meter reader training programs and expand them where necessary.

B. M. Scherer, Citizens Gas and Coke Utility, Indianapolis, Ind., was next with a report covering customer information manuals.

"The factors which have produced successful manuals," he concluded, "can be summed up in the formula: Attention, plus Interest, plus Understanding, equals Results!"

E. R. Eberle, Public Service Electric and Gas Co., completed the session with a discussion of the report on employee performance ratings for accounting and other office employees. This subject was discussed still further at a General Accounting Activities luncheon on Tuesday.

A second session of the General Accounting Activities Group was held Tuesday afternoon with J. C. Cross, Hope Natural Gas Co., Clarksburg, W. Va., and Mr. Boyd presiding.

Opening events were the subcommittee reports of A. T. Gardner, Delaware Power and Light Co., Wilmington, Del., and J. E. Jackson, The Cleveland Electric Illuminating Co., on functional or responsibility accounting, and of J. K. Laurentz, The Brooklyn Union Gas Co., on internal auditing.

(Continued on page 46)

Up and Down the Corridors with LER



MEEET me in St. Louis—and they did! The gas and electric industry's executives—vice-presidents, comptrollers, treasurers, tax experts, public relations representatives, and the very large group who really do the work and keep the ball rolling—the customer and general accounting groups. In all more than 650 interested men and women who crowded the conference rooms.

The "Oscar" for attendance and attentiveness to this conference group. Their strict attention to the business at hand should be a source of satisfaction to the men responsible for such a splendid program. The combination of Co-Chairmen Williams and Hardwick, together with their committee personnel, certainly did an outstanding job.

Some of the boys arrived Saturday, others Sunday, and what a rush on Monday morning! Arrivals were for the most part in what native St. Louisans said was not the normal weather—rain and plenty of it.

And speaking of rain, at the Glen Echo Country Club on Sunday morning four of our well-known boys, Al Schettler, Wally Caine, Frank Phelps and John Williams, really were soaked to the skin. They played golf—or at it—18 holes in all—nineteenth not counted. While one of our scouts did get a peek at the scores, they shouldn't be published. Only comment—the four scores totaled 454. Draw your own conclusions.

Ran into an old pal, C. E. Gieseke from Spokane, Washington. Met him first at an I.B.M. school years back—pleasant fellow. Enjoyed the luncheon at the Noonday Club on Monday—our host, R. E. Moody, executive v.p., pinch-hitting for President McAfee of Union Electric Company. This testimonial honoring Edward Hopkinson, Jr., senior partner, Drexel and Co., Philadelphia, was attended by a group of St. Louis bankers, the speakers on the Monday afternoon program, and the A. G. A. and E. E. I. officers.

Had some interesting conversation with R. W. Hendee, Colorado Interstate Gas Co., the next A. G. A. president, but somebody should tell us about these fellows before the conference is nearly over.

Again at the conference, after an absence of a year or two, John Roper, Washington Gas Light and Ed Embree, New Haven Gas Light—two easy-to-get-along-with-fellows.

We like to talk about J. E. (Ed) King of Con Edison New York, who did such an excellent job for the Accounting Employee Relation Committee on Monday afternoon, and with his Co-Chairman Ed Eberle, Public Serv-

ice of N. J., again on Tuesday. This is a good team on an important subject.

Machine exhibits on the mezzanine attracted much attention and favorable comment. Orchids to the manufacturers for their fine showing.

Congratulations, O. K. Boyd, Consolidated Gas and Electric Baltimore, on your promotion to an officership in your company. Your many friends will be pleased at the news. And incidentally another fellow from the same company, who in the opinion of this correspondent will go places, is the versatile Bill Kelly, who is so active on A. G. A. and E. E. I. committees.

One of the best cracks of the conference, from Sylvia Smith, St. Louis convention bureau. We were standing at the registration desk when Fran Overstreet, Rem-Rand, Indianapolis, stopped to ask the attractive young lady if his name was on the list. The reply was, "If it isn't we'll send a note home."

Never let Harold Dalbeck, New England Power Service Co., near your card table. Upset it he will.

We missed a great guy in C. J. (Jud) Wardell, Consumers Power. Jud suffered a heart attack on Saturday night, which will confine him to St. Luke's Hospital, St. Louis, for approximately six weeks. Our best wishes for a speedy and satisfactory recovery, Jud. In the meantime—keep your chin up. Your many friends will help you with their cards and letters.

From the host companies, John Faris, Union Electric Corp., and Lloyd Horton, La-Clede Gas Light, were of great assistance to Messrs. Williams and Hardwick as well as to all delegates who sought their help. Friends such as these make a conference pleasant.

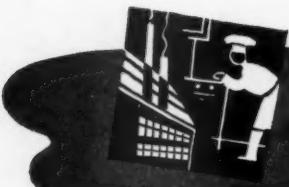
A personable chap this Weston Smith, Financial World. His exhibit of annual reports was interesting and his talk enlightening.

It is encouraging to see the past section chairmen out in full force for these conferences. The past A. G. A. chairmen we were privileged to talk with were Messrs. Dyer, Keller, Cliff, Mayo, Embree and Watkins.

Archie Mayotte, Consumers Power, is a real song leader—he did an admirable job at the Tuesday dinner—gave this party just the touch it needed.

Did you ever meet the genial Bob Lawlor, Buffalo Niagara Electric? He loves to reminisce—and the quiet gentleman from Michigan Consolidated, Paul Ewers—or hard-working J. K. Laurentz, Brooklyn Union—Jim Scott, Winnipeg Electric, Winnipeg, Canada, who never misses a conference—and many, many more. They're a grand gang.

So with "congratulations" to all the boys who assisted in making this spring conference so successful—we say—so long, and to the A. G. A. boys—stay in there pitching—we want another good program for the annual convention in Atlantic City in October. Be seeing you there!



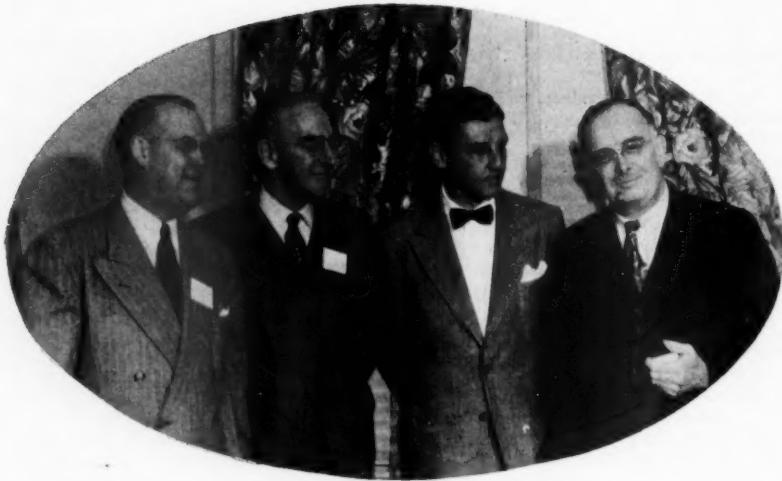
INDUSTRIAL & COMMERCIAL GAS SECTION

LEON OURUSOFF, Chairman

BERNARD T. FRANCK, Vice-Chairman

MAHLON A. COMBS, Secretary

Hands Across the Border



R. W. Hendee (left), A. G. A. vice-pres.; Thomas Weir, Union Gas Co. of Canada, Ltd.; Leon Ourusoff, chr., A. G. A. Industrial & Commercial Gas Section; Rev. Norman Rawson, Hamilton, Ont., speaker

THE 1948 A. G. A. Conference on Industrial and Commercial Gas, sponsored by the Industrial and Commercial Gas Section, American Gas Association, was not only the most successful ever held, but was the first such conference to be held on Canadian soil.

For three days, April 7-9, Section members from Canada and all over the United States met in Windsor, Ontario, to hear outstanding speakers present papers on many phases of the gas industry. One of the most significant factors contributing to the success of the conference was the superlative cooperation of the Union Gas Co. of Canada, Ltd., and Windsor Gas Co. Ltd. A. G. A. staff and Section members were the recipients of many "behind the scenes" favors by these two host companies. Capable ladies from the Windsor Gas Company were in constant attendance at the registration desk to serve all those attending the conference.

Following registration on Thursday, April 8, papers of a general nature were presented. At a formal luncheon Thomas Weir, president, Windsor Gas Co., Ltd.,

and general manager, Union Gas Company of Canada, Ltd., welcomed the delegates to Canada. Alderman Bradley welcomed the gas men to Windsor in the name of the mayor. These gracious gestures were acknowledged by Robert W. Hendee, A. G. A. first vice-president.

As featured speaker of the luncheon, a prominent clergyman from Hamilton, Ontario, Rev. Captain Norman Rawson, in a forceful address, "Public Enemy Number One," admonished his listeners to use the same vigor in advocating the American way of life and free enterprise as those who oppose our thinking.

"If Canada had its choice of neighbors from among all the peoples of the world, it would choose the American people," he declared emphatically.

A further gesture of friendship was made at a dinner that same evening when Union Gas Co. of Canada, Ltd., provided an hour's entertainment consisting of several acts, both serious and humorous.

General sessions papers of interest to both industrial and commercial gas men included "Let's Take A Look At Research" by Eugene D. Milener, coordinator, A. G. A. utilization research. Mr.



Standing (left to right): Harry W. Smith, Jr., New York; Walter F. Snyder, National Sanitation Foundation; Daniel J. Brogan, New York. Seated: Harry B. Wilson, The Brooklyn Union Gas Co.; Arnold Michelson, New York; Ray T. Juergens, Cleveland, O.; and R. D. MacMahon, Los Angeles, California

Milener gave his audience an insight into what is taking place in gas research and what the industry can look forward to in the future to meet competition and to further the progress of gas utilization.

Dynamic Harry W. Smith, Jr., former A. G. A. industrial and commercial publicity director, made a unique talk. In fact, he didn't talk at all, but had the assembled gas men check off answers on an advertising and publicity questionnaire which was collected at the end of the session. It is hoped that some interesting results of the questioning will be available for publication in the near future.

Some of the difficulties involved in building up uniform restaurant sanitation requirements were ably presented by Walter F. Snyder, executive director, The National Sanitation Foundation. He showed that it would be in the interest of all gas men having contact with public feeding to acquaint themselves with the aims and purposes of this foundation and be of assistance to local health authorities in the formation and enforcement of restaurant sanitary regulations.

Sydney Alling, speaking for Robert E. Ginna, vice-president, Rochester Gas and Electric Corp., gave everyone something to think about regarding electric competition.

"In meeting the competition of the electric industry in the commercial and industrial market, I believe an aggressive offense is the best defense. We should study the fields where gas is vulnerable and take steps to meet competition there."

He concluded that the industry should "Furnish adequate and reliable gas service. Know your market . . . and avoid complacency about your business. Gas has got it! Let's keep it!"

The need for "Revitalizing The Sales Force" was set forth in an interesting manner by Arnold Michelson, vice-president, Minneapolis-Honeywell Regulator Company, who commented on the fact that in



Section members and guests during formal luncheon in Prince Edward Hotel, Windsor, Ontario, Canada

these days of happy selling, management is prone to let sales training fall by the wayside.

"We all have heard a cry for the return to old-fashioned selling," he said. "In my books, that's so much bunk. What we actually need is a renaissance—a movement for new-fashioned selling—selling that carries force, persuasion and conviction. We need a recasting of sales methods in the light of today's requirements. The hues, tones and intensity of the market are different, and what sold gas yesterday may be selling oil or electricity today."

Both remaining days of the conference were set aside for specific sectional activities. Wednesday, April 7, was Industrial Gas Day and several highly technical papers were presented by speakers both in and outside of the gas industry.

The comparatively new field of powder metallurgy was discussed at length by

Robert Talmage, Norwalk, Conn., in a talk which set forth in a clear manner the variables that are encountered in the sintering of powdered metals. The importance of time and temperature in attaining desired results in different metals was illustrated. Mr. Talmage stated that he hoped for increased interest in this subject by those having equipment to sell and by gas men so that more people would be working with powdered metals and would thus contribute much-needed data.

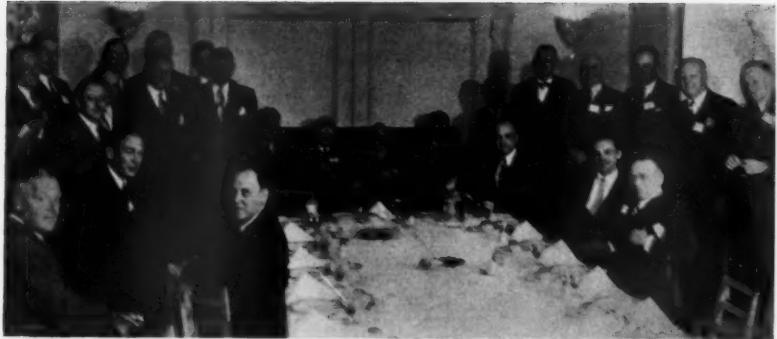
One of the most significant research reports issued this year is that on Project IGR-58 which has to do with the advantages and disadvantages of induction heating in relation to industrial gas heating. A comprehensive summary of the report was presented by George A. Uhlmeyer, Iowa-Illinois Gas & Electric Co., Rock Island, Ill., followed by a discussion led by S. L. Case, Battelle Memorial Institute, in which both men emphasized the advantages and claimed advantages of induction heating and how they can be met by direct high speed gas heating utilizing special equipment. The speakers stated that gas heating could easily meet production speeds with equipment that is half the investment cost of induction heating and with further significant savings in operating and maintenance.

A customer's viewpoint on the applications of gas heat treating processes was discussed by Floyd E. Harris, Buick Motor Division, General Motors Corp., Flint, Michigan. High point of Mr. Harris' talk was his advocacy of a general purpose carrier gas for atmospheres, and his description of what this gas should be.

Featured technical papers at the con-



Windsor conference delegates and speakers: (l. to r.) S. L. Case, Battelle Memorial Institute, Columbus, Ohio; Floyd E. Harris, Flint, Mich.; Robert Talmage, Norwalk, Conn.; George A. Uhlmeyer, Iowa-Illinois Gas & Electric Co., Rock Island, Ill., and P. R. Dreyer, The Peoples Gas Light & Coke Co., Chicago



Windsor meeting of "Hall of Flame" to honor persons who have made outstanding contributions to the welfare and progress of the gas industry through services performed in the Section



Leon Ourusoff, Section chairman, and new "Hall of Flame" members: (l. to r.) Alvin M. Stock, and Frank J. Fieser, New York; Edward V. Fineran, Washington Gas Light Co., and R. D. MacMahon, Southern California Gas Co., Los Angeles. Carlton W. Roll, The Brooklyn Union Gas Co., was made a member



Dorothy Dean and Eleanor Bientz, The East Ohio Gas Co., in commercial cooking demonstration at National Restaurant Show. (Story on page 27)

ference were those on industrial paint drying by Paul O. Blackmore, Interchemical Corp., Cincinnati, O., and H. R. Clauser, associate editor, *Materials and Methods*, New York, N. Y. Mr. Blackmore described in elaborate detail the chemistry of paint drying and polymerization of synthetic finishes. This discussion was followed by Mr. Clauser's papers on the types of equipment to attain the various results outlined.

Herman Gehnrich, Woodside, N. Y., well-known manufacturer of industrial ovens, told the conference about a comparatively new use for industrial ovens in the field of curing and smoking meats and meat products. He pointed out that with modern equipment, the processing time could be materially lowered and a uniformity obtained that was impossible with

old-style smoke houses.

Heat treating baths, their proper use, advantages and disadvantages, were discussed in a paper by Dr. Haig Solakian, Guilford, Connecticut. Mr. Solakian settled doubts in the minds of many gas men on various points in the use of salt baths and detailed temperature limits for the various chemicals used in these baths.

The same procedure was followed on Friday, April 9, Commercial Gas Day, when several outstanding talks were given by leaders in their respective fields.

Harry B. Wilson, The Brooklyn Union Gas Co., opened the morning session with one of the finest papers yet presented on a fairly recent development—the self service laundry. Gas men who have these laundries in their territories or have prospects will want this informative document in which Mr. Wilson describes an economizer which utilizes heat from waste water to preheat incoming water.

L. J. Fretwell, Oklahoma Natural Gas Co., Tulsa, Okla., followed with his "Hot Water A La Carte" in which he outlined the various "musts" which a gas man should know about the sizing of heaters for hot water service in a public feeding establishment.

The afternoon session was given over to a forum on appliance servicing—a subject which should be brought to the attention of gas company management, manufacturers, and dealers in heavy duty gas cooking equipment. Until the responsibility for service is resolved, the problem of proper functioning of gas appliances will continue. Views were presented by: As a sales supervisor—R. D. MacMahon, Southern California Gas Co., Los Angeles, Calif.;

As an appliance manufacturer—D. J. Brogan, The G. S. Blodgett Co., Inc., Burlington, Vt.;

As a service supervisor—R. G. Juergens, The East Ohio Gas Co., Cleveland.

In an inspirational talk, "What's Cookin' With Cooking Equipment," John J. Bourke, director, A. G. A. commercial gas cooking promotion, showed that there are new items to sell and new fields to cover.



Left and right views (above) convey some idea of the size of the large Combined Commercial Cooking Exhibit at the National Restaurant Show, Cleveland

A. G. A. Restaurant Show

Exhibit Largest Yet

NOT only was the 1948 twenty-ninth annual convention and exposition of the National Restaurant Association at Cleveland, Ohio, April 14-17, the largest show held but it also included the largest Combined Commercial Cooking Exhibit ever sponsored by the American Gas Association. Over 16,000 persons visited the booths of 23 participating manufacturers showing their newest gas equipment.

Among new items which drew the special interest of the show visitors was a small steam cooker developed by The Cleveland Range Company. Their junior-size steam cooker has been designed for the small commercial kitchen and is a self-contained automatic gas-fired appliance that can be used mounted on a table or its own base. The cooking chamber is equipped with two doors and can process more than two bushels of food at one time. Salient feature of this new steam cooker is that it steam cooks food at atmospheric pressure.

The other gas appliance that was a focal point of attention was the new flavorizer developed by Standard Gas Equipment Corp., Baltimore, Maryland. This is a glass enclosed multi-purpose cooking appliance in which food is placed on revolving spits which turn at different speeds. A ceramic burner is located in each of the four corners. Pots and pans are eliminated, natural juices are retained, and several different types of foods may be cooked at one time. This is where the varying speeds of the revolving spits can be used to full advantage.

Cooking Demonstrated

On two days during the exposition Paul P. Logan, director, Food and Equipment Research for the National Restaurant Association, put on a food demonstration which included cooking of "the perfect hamburger," deep frying of frozen fish fillets, and pressure cooking of green string beans in small quantities. These demonstrations were all made on gas cooking equipment supplied through the courtesy of The East Ohio Gas Co., Cleveland. The actual cooking was done by two members of the home economics department of the same company.

Manufacturers cooperating were: American Stove Co., Anetsberger Brothers Inc., The G. S. Blodgett Co., Inc., The Cleveland Range Co., Cory Corp., Detroit-Michigan Stove Co., Duke Manufacturing Co., Groen Manufacturing Co., Hart Manufacturing Co., B. H. Hubbert & Son, Inc., Lyons-Alpha Products Co., Inc., Magikitch'n Equipment Corp., The Malleable Steel Range Manufacturing Co., Market Forge Co., National Corning Works, J. C. Pitman & Sons Sales Corp., Robertshaw-Fulton Controls Co., Savory Equipment, Inc., Sellers Engineering Co., Specialties Appliance Corp., The Stephen Norton Engineering Co., Standard Gas Equipment Corp., Wolf Range & Mfg. Company.

(See pictures on preceding page.)



Cameraman checks light on the star of A. G. A. commercial cooking film preliminary to shooting a scene in the Restaurant Roberto, New York, where the "hero" first walks through his dream restaurant

Cooking Film Production on Schedule

ACTORS, directors, cameramen, and John J. Bourke, director, commercial gas cooking promotion, American Gas Association, have been busy during the past month shooting the many scenes for the forthcoming commercial cooking film sponsored by the Food Service Equipment Committee, A. G. A. Industrial and Commercial Gas Section.

The film is in full color with sound and will be educational as well as entertaining. The smoothly flowing plot in brief shows how a humble diner owner achieves his lifelong goal of a dream restaurant. The proper equipment is filmed in use throughout the movie together with various cooking operations. The film is especially adapted for showing to meetings of hotel men, restaurant men,

dieticians, club managers, hospital administrators, stewards, caterers, chefs and cooks.

Many locations were used to give continuity to the story. Several kitchens of the Waldorf-Astoria, New York, will be shown as well as a country club on Long Island and other locales in the Metropolitan New York area.

The production schedule has been met throughout and as previously announced the film should be ready for release the latter part of May, at which time it will be available on loan to member gas companies. Information regarding the film and its use may be secured from John J. Bourke, director, commercial gas cooking promotion, American Gas Association, 420 Lexington Avenue, New York 17, N. Y.



Economical grouping of pots on one gas range section is demonstrated by a cook at the Waldorf-Astoria



RESIDENTIAL GAS SECTION

C. S. STACKPOLE, Chairman

W. M. JACOBS, Vice-Chairman

F. W. WILLIAMS, Secretary

Aggressive Selling Sold at Chicago



Conference chairman and chairman-elect, respectively: B. H. Wittmann (left) and W. L. Hayes

NECESSITY of aggressive sales training and carefully planned sales and promotion plans was the major theme of the dynamic Mid-West Regional Gas Sales Conference sponsored by the Residential Gas Section, American Gas Association, at the Edgewater Beach Hotel, Chicago, March 30-April 1.

Much credit is due to B. H. Wittmann, general sales manager, The Peoples Gas Light & Coke Co., Chicago, as chairman of the conference, and to H. D. Valentine, sales promotion manager of Peoples, as coordinator, for the outstanding quality of the program and speakers.

From the opening session Tuesday morning through to the sales clinic which closed the meetings on Thursday, more than 600 sales executives from the mid-west area were treated to frank and analytical discussions of sales and economic problems of the day by experts in various fields from within and from without the gas industry.

Mr. Wittmann opened the conference with a clear-cut analysis of gas industry sales problems of today. Pointing out the strong trend in competitive industries to subsidize sales through direct payment of installation costs, he reported the results of successful sales and promotional efforts in his own territory despite the subsidies of competing fuels.

Other speakers on the Tuesday session

included Edward A. McFaul, Northwestern University, who presented some fallacies in thinking; Frank W. Williams, secretary, A. G. A. Residential Gas Section, whose talk "It's Time To Get Ready To Sell Again," offered sales executives considerable food for thought.

Mr. Williams called for increased gas industry activity in the new-home building field and closer relations with the architectural and building professions.

Howard D. Valentine, The Peoples Gas Light & Coke Co., who traced the decline of various empires because of the transition from the hardships of pioneering to the ease of having achieved objectives. He added a warning to the gas industry that complacency because of its present position in the market could lead to gradual decline in the competitive field.

Conference highlights were reviewed by E. S. Finerty of Peoples at the afternoon session on Tuesday. Eleanor M. Morrison, Michigan Consolidated Gas Co., presided at a forum of home service directors in an interesting discussion on organizing and conducting programs for home service girls. R. J. Canniff, advertising and sales promotion manager, Servel, Inc., and an able troupe of thespians, presented



H. D. Valentine (left), conference coordinator, and Raymond J. Vandagriff, vice-chairman-elect

a fast-moving, amusing and informative skit covering Servel's gas refrigeration plans for 1948.

W. L. Hayes, Montana-Dakota Utilities Co., Minneapolis, Minn., newly-elected chairman, Mid-West Regional Sales Conference, presided at the Wednesday session, and his program matched that of the previous day.

The forthcoming coordinated gas water heater campaign was presented by W. D. Williams, Public Service Electric and Gas Co., Newark, N. J., H. Emerson Thomas, Pennsylvania and Southern Gas Company, Westfield, N. J., offered some interesting statistics on the growth of the LP-gas industry and told of the efforts of his in-



F. M. Rosenkrans (left), The Gas Service Co., presided Tuesday afternoon; and Adolph E. Hattie, Central Indiana Gas Co., and Earle E. Merrett, Hamilton Manufacturing Co., were speakin

dstry to cooperate with the city gas utilities. Dr. Herman Finer, University of Chicago, outlined America's economic prospects in an expert manner.

Kitchen planning programs in large and small utility companies were described by Bob Calrow, Minneapolis Gas Light Co., and Richard A. Plata, New York & Richmond Gas Co., Staten Island, N. Y. Merchandising opportunities from the standpoint of manufacturers and department stores were ably presented by Earle E. Merrett, Hamilton Manufacturing Co., and Laurence M. Brock, Carson Pirie Scott & Company.

Mr. Brock selected as his subject, "Is There a Tomorrow in the Domestic Gas Appliance Business?"

He gave a number of suggestions for increasing the efficiency of contact approach between gas appliance manufacturers and retailers and showed how salesmanship in department stores can be improved.

The best help along this line, he declared, can be given in product education which "will give the salesman confidence and the desire to expound that knowledge to the prospective buyer."

Thursday morning's session, under chairmanship of R. J. Vandagriff, The Laclede Gas Light Co., St. Louis, Mo., was given over to discussion of sales problems. Both Adolph E. Hatley, Central Indiana Gas Co., Muncie, Ind., and S. W. Weill, George D. Roper Corp., had inspirational and informative talks to offer.

Representing the consumer viewpoint, Elizabeth Sweeney, editor, *Household Equipment*, McCall Corp., gave an excellent picture of the transition of the American home and the new needs of the American housewife. Nathaniel Leverone, chairman of the board, Automatic Canteen Company of America, delivered an inspirational address on understanding that was one of the highlights of the conference. Stressing the need for understanding among peoples and among business men, rather than entirely competitive



R. J. Canniff and P. A. Brown (above), Servel, Inc., during an amusing skit covering the company's 1948 gas refrigeration plans. Members of the cast (top) shown in a home service scene, and "Tiny Flame" (right) making a dramatic entrance



feelings and hatreds, as a formula for success, Mr. Leverone left his audience with much food for serious thought.

At the sales clinic on Thursday afternoon, about 30 sales executives from different areas within the mid-west region were brought up to date on the sales and promotional plans of the American Gas Association. Frank W. Williams, A. G. A., reviewed the work of the various operating committees in the Residential Gas Section in the fields of gas cooking, refriger-

ation, and house heating, outlining plans for 1948. He presented new plans for the training and indoctrination of salesmen.

H. Vinton Potter, coordinator, A. G. A. Promotion, explained the Association's new organizational chart depicting the work of the Promotional, Advertising and



Edward A. McFaul (left), Northwestern University, presented fallacies in thinking; H. Emerson Thomas, Pennsylvania and Southern Gas Co., gave statistics on LP-gas growth; Dr. Herman Finer (center), University of Chi-

cago, outlined economic prospects; Laurence M. Brock, Chicago, spoke on domestic appliances; W. D. Williams, Public Service Electric & Gas Co., discussed campaign to expand the market for automatic gas water heaters

HOW DOES THE DEALER IVE IN?

HE GETS
Advertising
Floor Display
Sales Leads
Prestige

HE GIVES
In-the-Kitchen Service
Specification Plans
Sinks and Cabinets



Robert Calrow illustrating kitchen planning

Richard A. Plata (left), New York & Richmond Gas Co., describing kitchen planning programs. Principals at home service forum (right): Viola Decker, North Shore Gas Co.; Claudia Brant, The Gas Service Co.; Irene Muntz, Rochester Gas and Electric Co.; Eleanor Morrison, Michigan Consolidated Gas Co.



S. W. Weill (left), Geo. D. Roper Corp.; Nathaniel Leverone, Chicago, and Elizabeth Sweeney, McCall's

Research Plan under the chairmanship of Robert Hornby, and the General Promotional Planning Committee under Hugh H. Cuthrell.

After a brief review of some of past activities of the A. G. A. Promotion Bureau, Mr. Potter described the new campaign being launched this month on automatic gas water heaters at the local utility and

dealer level. A presentation of the new portfolio of promotional, advertising and publicity helps for utility companies and dealers was made. Sales executives present displayed considerable enthusiasm regarding the cooperative campaign, which is to precede the all-out national campaign to promote sales of automatic gas water heaters in 1949.

Lighting Company, long active in A. G. A. affairs, will welcome conference members at the opening session Monday, May 24. Also on the Monday program will be Harry Boyd Brown, merchandising manager, Philco Corp., nationally known as a merchandising expert in the appliance field.

George H. Smith, A. G. A. assistant managing director and Hugh H. Cuthrell, vice-president, A. G. A. and The Brooklyn Union Gas Co., are keynote speakers on the Tuesday program. Mr. Smith will bring a message of greeting from A. G. A. and Mr. Cuthrell, currently serving as chairman of the Association's General Promotion Planning Committee, will address the members on attaining sales objectives.

The "CP" Gas Range Program which has proved an excellent merchandising vehicle for promoting sales of quality gas ranges, has been chosen by a wandering troupe of thespians, The Brooklyn Union Players, as the subject for a dramatic presentation "Tell It and Sell It." Audiences in Philadelphia, Boston and Atlantic City have acclaimed this skit.

Joseph C. Bevis, vice-president, Opinion Research Corp., Princeton, N. J., will have some interesting views to offer on gas utility companies and their customers at the Tuesday meeting. The annual golf tournament will be held Tuesday afternoon. At the conference dinner, 8:30 P.M., Tuesday, J. J. Deely, new business manager, The Brooklyn Union Gas Co., as master of ceremonies, will award the tournament prizes.

Base-Load Subjects Listed for Rye



W. B. Hewson

MORE than 250 gas industry sales executives from the New York-New Jersey area are expected to attend the Regional Gas Sales Conference sponsored by the Residential Gas Section, American Gas Association, at the Westchester Country Club, Rye, N. Y., May 24 and 25.

The New York-New Jersey Regional Sales Council, under the chairmanship of William B. Hewson, The Brooklyn Union Gas Co., has arranged an interesting program for the two-day meeting. Other members of the executive committee of the council assisting Mr. Hewson are Robert B. Denhardt, Central Hudson Gas & Electric Corp., Newburgh, N. Y.; Walter G.

McKie, Rochester Gas & Electric Corp., and James A. Sackett, Kings County Lighting Co., Brooklyn, N. Y.

Authoritative speakers on gas refrigeration, gas cooking, and gas water heating, will discuss sales problems and objectives in these baseload branches of the industry. S. D. Weill, eastern manager, George D. Roper Corp., is scheduled to talk on action to gas range sales. George S. Jones, vice-president, Servel, Inc., will present Servel's plans for today—and for tomorrow in gas refrigeration.

W. D. Williams, assistant to sales manager, Public Service Electric & Gas Co., Newark, N. J., and chairman, A. G. A. Water Heating Committee, earned favorable comment on his presentation "Accent On Gas Water Heating," at the Regional Conferences in Pittsburgh and Chicago. He has added new slants that promise to make his Westchester talk even more interesting.

N. T. Sellman, vice-president, Westchester

TECHNICAL SECTION

A. C. CHERRY, Chairman

S. J. MODZIKOWSKI, Vice-Chairman

A. GORDON KING, Secretary

Mechanization Theme at Pittsburgh

NEARLY 600 delegates from all parts of the United States and Canada attended the American Gas Association Technical Section's "triple-threat" conference on the gas industry's distribution, motor vehicle and corrosion problems, April 19-21, at the William Penn Hotel, Pittsburgh. This is the first year that corrosion has joined the annual Distribution and Motor Vehicle Conference as a full-fledged partner. Dominating theme of the conference was the trend toward mechanization which has extended to every phase of the gas business and is looked upon as a vital factor in helping the utilities to meet the continuing high costs of labor and materials. A large part of the meeting was devoted to discussions and illustrations of new or improved applications of machinery.

H. W. Nicolson, Public Service Electric & Gas Co., Newark, N. J., chairman, Distribution Committee, presided at the three morning general sessions, and called attention in his opening remarks to the increasing utilization of mechanical equipment and its importance in the nation's economy.



D. P. Hartson (left), Pittsburgh; H. W. Nicolson, Newark, N. J., chairman, Distribution Committee; James E. C. Currens, Sacramento, Calif.; J. M. Pickford, Hammond, Ind., vice-chairman, Distribution Committee



Professor Amos E. Neyhart (left), Institute of Public Safety; F. G. Church, New York; M. C. Alves, chairman, A. G. A. Motor Vehicle Committee; F. M. Rudman, Michigan Consolidated Gas Company

omy. He welcomed the organization of the new general committee on Corrosion and its addition to the annual spring conference. In closing, Mr. Nicolson stressed the great need for more young men to take part in the meetings and in the Association's work.

An interesting picture of the background of the three local gas companies was given by D. P. Hartson, vice-president and general manager, Equitable Gas Co., and a past-chairman of the Technical Section, who welcomed the visitors to Pittsburgh. Mr. Hartson pointed out that many distribution innovations had been tried in that territory, including almost all known types of joints, couplings, and other equipment.

The tremendous importance of distribution work was emphasized by H. Carl

Wolf, A. G. A. managing director, who commented that while enough gas can be produced to meet all demands the foremost problem today is one of distribution. Men and materials form the basic industry, he said, but it takes ideas to make them work. Thus distribution men must strike out in new directions to meet the challenge and the opportunity presented by today's demand for gas service.

Giving a different slant to Mr. Wolf's appeal for original thinking, Hudson W. Reed, A. G. A. president, and president, The Philadelphia Gas Works Co., at the second general session called for the presentation of papers which would arouse increased interest and provocative thought. He commended the consolidation of distribution, motor vehicle and corrosion subjects in one meeting and reviewed



W. R. Fraser, Michigan Consolidated Gas Co., Detroit, chairman A. G. A. Corrosion Committee



D. M. Steen (left), Long Island Lighting Co.; J. G. White, The Peoples Gas Light & Coke Co.; C. S. Hazel, The Philadelphia Gas Works Co.

briefly the topics which made the program timely and constructive. President Reed closed his talk with a recommendation that a permanent record be made of the conference proceedings so that its beneficial and constructive material might be available to those who could not attend.

J. M. Pickford, Northern Indiana Public Service Co., Hammond, vice-chairman, Distribution Committee, and chairman of the luncheon conferences, told the delegates what was in store for them at the four luncheon conferences on Monday and Tuesday. These off-the-record conferences attracted a large attendance and proved an effective vehicle for transmitting a wealth of information on many topics. They were divided as follows:

Motor Vehicle—M. C. Alves, Union Electric Co. of Missouri, St. Louis, chairman.

Work on Consumers' Premises—C. S. Hazel, The Philadelphia Gas Works Co., Philadelphia, Pa., chairman; S. F. Baldwin, Rochester Gas and Electric Corp., Rochester, N. Y., vice-chairman.

Meters and Metering—H. J. Sterk, The Peoples Gas Light and Coke Co., Chicago, chairman; R. J. Ott, The Philadelphia Gas Works Co., vice-chairman.

Joint Construction & Maintenance and Distribution Design & Development—G. E. Hitz, Central Hudson Gas and Electric Corp., Poughkeepsie, chairman, Construction and Maintenance; F. J. Hall, Michigan Consolidated Gas Co., Detroit, vice-chairman; Construction and Maintenance, C. A. Brown, Rochester Gas and Electric Corp., chairman, Distribution Design and Development.

As chairman of the newly-organized Corrosion Committee, W. R. Fraser, Michigan Consolidated Gas Co., Detroit, outlined the objectives of this group and solicited the support of the industry in carrying out a constructive program. Later during the conference, a meeting of the corrosion group was held under Mr. Fraser's direction.

Motor Vehicle Program

Initial contribution of the Motor Vehicle Committee to the conference was an outstanding report on "Driver Selection and Training" by Professor Amos E. Neyhart, administrative head, Institute of Public Safety, The Pennsylvania State College, which concluded Monday's general session. Professor Neyhart outlined 16 tools of driver selection designed to help the fleet operator improve his "batting average" in selecting good drivers. These are: job analysis and specifications; selective application; telephone check; planned interview; visual speed and accuracy test; traffic and driving knowledge; road test in traffic; handling vehicles in close quarters; psychophysical tests for driver limitations; physical examination; general intelligence test; personality inventory; vocational interest blank; aptitude test; state driver's license bureau record, and fingerprint record.

Training courses to prepare motor vehicle fleet supervisors are provided at colleges and universities in many states, Professor Neyhart said. He cited the "astonishing" results many fleet operators had achieved following the adoption of scientific selection and training programs. The fleet operator today, he concluded, "has a way of improving his operation, cutting his costs and making his vehicle a better public relations asset on the highway."

A round-robin discussion of many motor vehicle topics featured the Monday luncheon conference under the chairmanship of Mr. Alves. The advantages and disadvantages of alcohol versus antifreeze were discussed by F. G. Church, National Carbon Co., Inc. Other topics reviewed included: automotive cooling systems, new garage equipment, air brake maintenance, preventive maintenance programs, testing air tools, and mechanical car washing devices.

Modern maintenance methods were highlighted at the Tuesday morning motor vehicle symposium which was conducted by J. R. North, vice-chairman, E.E.I. Transportation Committee. Principal speaker at this session was W. J. Cummings, manager, Field Service Division, White Motor Company. Jean Y. Ray, Virginia Electric Power Co., and chairman, E.E.I. Transportation Committee, summarized utility practices in connection with servicing vehicles and stressed the necessity for complete managerial support to maintain proper maintenance schedules. This same topic was further discussed at the Tuesday afternoon luncheon conference.

V. C. Kloepfer, Ford Motor Company representative, was the keynote speaker at the Wednesday morning motor vehicle

symposium led by Mr. Ray. Mr. Kloepfer brought the delegates up to date on the latest developments in light trucks and other widely used commercial vehicles. The motor vehicle program concluded with the Wednesday luncheon conference featuring operational problems. F. M. Rudman, Michigan Consolidated Gas Co., Detroit, chairman of the Program Committee, presided at this meeting and Mr. Ray acted as discussion leader.

Meters and Metering

As the "cashbox" of the gas business, meters and metering occupied a prominent position in the conference. Two luncheon meetings were held under the leadership of Chairman Sterk and many phases of metering practice throughout the country were studied. Topics at the meetings included meter repair practices, washing machines and tool development, installation practices, equipment design and development, maintenance of rotary meters, domestic usage of orifice meters, and house service regulators.

High point of the metering program was an inspection trip of several hundred delegates to the modern plant of the Pittsburgh Equitable Meter Division, Rockwell Manufacturing Company. After a specially-conducted tour of the plant, the company acted as hosts to the delegates at dinner.

Work on Consumers' Premises

Under the chairmanship of Mr. Hazel, the two luncheon conferences covering Work on Consumers' Premises stimulated vigorous discussions of many important topics. Discussion leaders were R. B. Barger, The Hartford Gas Co., "The Water Heater Problem"; J. G. White, The Peoples Gas Light and Coke Co.,



R. B. Barger (left), The Hartford Gas Co.; A. C. Cherry, Cincinnati, Technical Section chairman



Jean Y. Ray (left), Richmond, Va.; V. C. Kloepper, Ford Motor Co.; V. F. Bittner and H. J. Sterk, Chicago, Ill.; Donald J. Miller, Denver, Colorado



W. Robertson (left), Montreal; E. J. Graham, Denver, Colo.; G. E. Hitz, Poughkeepsie; F. J. Hall, R. B. Allen, and A. H. Cramer, Detroit, Michigan

Chicago, "The Question of Chimney Lining"; C. L. Ruff, Michigan Consolidated Gas Co., "Training"; and G. B. Johnson, Minneapolis Gas Light Co., "Radio Dispatching and Its Relationship to Appliance Servicing."

Headline presentation of this group was a symposium on house heating servicing problems which was a feature of the Tuesday general session. Leaders of the symposium were P. C. Avant, Atlanta Gas Light Co.; D. M. Steen, Long Island Lighting Co.; and J. G. White, The Peoples Gas Light and Coke Company. Each speaker took turns discussing the policies of his company in regard to (1) general service policies, (2) light-ups, shut-offs, and service calls, and (3) other service problems.

Mr. Avant reported that Atlanta has a free service policy and that the company expects to continue it. He estimated that at least 90 percent of new construction in that territory includes gas house heating as well as cooking, refrigeration and water heating.

In contrast to Atlanta, Mr. Steen stated that his company in New York was forced to abandon its free service policy because of the sharply rising cost of manufactured gas and inability to get prompt relief through increased rates. Long Island Lighting Co. charges \$2.25 for the first hour and \$1.50 for additional hours and does a thorough servicing job on all house heating equipment.

A free service policy has been main-

tained in Chicago, Mr. White said, except for the replacement of parts. The latter are supplied by the firms who originally sold the equipment. There is no completion schedule, he indicated, but urgent calls get prompt attention. Further discussion brought out the fact that some companies are engaged in educational programs to encourage their customers to turn-on and shut-off their furnaces without calling for company assistance.

Construction and Maintenance

Meeting jointly at two luncheon conferences with those interested in distribution design and development, the construction and maintenance group, headed by Mr. Hitz, presented a well-rounded program to near-capacity audiences. At the first session Mr. Nicolson presented and discussed a series of slides showing new or unique modern equipment utilized effectively by Public Service Electric and Gas Co., New Jersey.

The application of time and motion studies to distribution construction and maintenance work has resulted in a constant upward trend of production. H. M. Dwight, Southern California Gas Co., Los Angeles, reported in an interesting paper outlining the system used by this West Coast utility. He brought out that the principal factors disclosed by these studies are waste time, incorrect or inefficient methods, improper crew sizing, and improper planning.

Pointing out that the benefits of time

and motion studies must be "sold" to the supervisors and men, Mr. Dwight stated that they cannot be legislated into effect. Production calculations are essentially a tool of management, he said, and should be used as a guide to line supervisors in determining which crew leaders need help in planning and executing their assignments.

Speaking at the second general session, James E. Currens, Pacific Gas & Electric Co., Sacramento, Calif., gave a comprehensive analysis of the mechanization of gas service construction. After discussing various methods of organizing mechanized work, he described an ideal trenching machine His company is now using the Jeep-A-Trench effectively, and Mr. Currens indicated that the jeep has even greater possibilities than have been developed.

Further attention was riveted on mechanization of construction and maintenance practices at a symposium during the final general session which was conducted by E. G. Campbell, The Peoples Gas Light and Coke Co., Chicago; Frank J. Hall, Michigan Consolidated Gas Co., Detroit; and Martin L. Harris, Public Service Electric and Gas Co., Paterson, N. J. Mr. Campbell used slides to illustrate various mechanical equipment and devices utilized by his company in construction and maintenance work. Mr. Hall reported a considerable degree of mechanization in main work in the Detroit area but not so much on the company's 500,000 services. Jeep



Deep in discussion of Technical Session meetings at Pittsburgh are A. D. Simpson, Jr., C. L. Morgan, C. C. McEachern, all United Gas Corporation



J. E. B. Gibbons (left), Koppers Co., Inc.; W. A. Dunkley, Memphis Light Gas & Water Division

trenchers received a boost from Mr. Harris who declared that they have done a fine job and proved economical in New Jersey.

Progress in the gas industry's quest for a practical light weight service trencher was summarized by R. B. Allen, Michigan Consolidated Gas Co., Detroit. Mr. Allen reviewed the results of surveys made to determine gas utility requirements and disclosed the equipment available now to meet these requirements. He concluded that while much has been accomplished during the past year, "no one machine has met all the basic requirements of an industry operating throughout the widely varying climatic and soil conditions encountered in the United States."

Walter C. Peters, Northern States Power Co., St. Paul, Minn., during the second luncheon conference, described various methods of cleaning mains and services of foreign matter. His informative presentation included a film showing the cleaning of gas services.

Distribution Design and Development

That part of the two luncheon conferences and general sessions papers dealing with distribution design and development, presented under the leadership of Mr. Brown, brought out much valuable information on this most pressing gas industry

problem. Principal speaker at the first luncheon conference was George A. S. Cooper, Public Service Electric and Gas Co., Newark, N. J., who discussed "Economic Factors for Distribution Design."

Mr. Cooper described a method of setting up data for a transmission pumping design that accurately reflects various costs of capital, taxes, compressor stations, mains and any other factors the designing engineer might wish to include. Changes in load factors are readily computed by adjusting the fuel costs, the author stated.

An illuminating paper on "Denver Distribution Design for House Heating Load," by Donald J. Miller, Public Service Co. of Colorado, was the lead-off feature of the Tuesday general session. With more than half of their 100,000 customers using gas for house heating, the Denver company has had to meet large peak demands, and Mr. Miller gave a detailed description of the distribution design in use.

Keystone in the arch of Denver distribution design for residential heating, Mr. Miller noted, is found in the use of two-inch mains. These mains are functioning as well today in serving heavy residential heating loads as they did years ago serving the insignificant loads active during Denver's manufactured gas days. "With the exception of a few replacements by new feeder mains," he said, "not a single foot of two-inch mains has been enlarged to provide additional capacity for service to residential heating loads."

In reckoning the demand, Mr. Miller declared, "no consideration was given in this report to diversity of heating load nor to the demands of cooking, water heating and other appliances. The omission was intentional since Denver experience has indicated that design for 100 percent of the connected heating demand will, because of heating diversity and the flexibility of the system, usually provide for cooking and water heating and other incidental use of gas."

"Time after time," he continued, "comparison of maximum hour delivery during periods when industrial loads were curtailed has tallied very closely with total connected heating demand on the system." Current design in new areas is for 100 percent saturation of heating customers, Mr. Miller reported.

J. M. Pickford and Richard J. Hoag, Northern Indiana Public Service Co., Hammond, in a report of the Distribution System Capacity Subcommittee, traced the development of demand meters and meter attachments and reviewed gas company experience with this equipment. The com-

mittee also reported on a survey of gas demand figures used in distribution system design and noted the experience of several companies.

A method of determining pumping pressures by utilizing square-mile estimates was presented at the Wednesday morning general session by V. F. Bittner, The Peoples Gas Light and Coke Co., Chicago. Valuable data was presented in a study of the steps necessary to handle a maximum daily send-out of 500,000 M.cf. of 800 B.t.u. mixed gas which is considered a possibility in Chicago in the near future. As a result of this study, the following conclusions were reached:

(1) Operation of the medium pressure system with an inner and outer zone will result in lower pressures than can be obtained from an open system.

(2) Pumping pressures in the inner zone will be less than those of the outer zone.

(3) As send-outs and pumping pressures increase, install remote controlled pressure and flow regulating stations between the inner and outer zones.

(4) Operate the inner zone as an open system.

(5) Control of pressure and flow in the outer zone will be required in the 48-inch main south of the Crawford Station.

Pipe Corrosion

Underground pipe protection practices followed by the Detroit District, Michigan Consolidated Gas Co., in urban and suburban areas were summarized by A. H. Cramer of that utility in a comprehensive report sponsored by the Corrosion Committee and presented at the Wednesday morning general session. After reviewing the corrosion mitigation practices of his company, Mr. Cramer described the field use of the Pearson Pipe Coating Fault Locator which has proved of value in Detroit. The fault locator is an electrical apparatus, requiring two men to operate, which detects faults in the protective coatings of an installed and buried pipe.

After four years' experience with the coating fault locator, Mr. Cramer reached the following conclusions:

(1) The fault locator is a worthwhile and necessary adjunct to the other instruments used for checking pipe coatings. The unit does not replace the conventional type of holiday detector. The proper time to repair coating faults, if possible, is before the pipe is lowered into the ditch.

(2) An electrical examination of the coating in addition to electrolysis surveys

(Continued on page 40)

Approval Standards Revised

Requirements Committee completes simplification and reorientation of six sets of standards

SIX sets of newly revised requirements, incorporating a year's intensive effort by the American Gas Association Laboratories and members of numerous subcommittees toward their simplification and reorientation, were adopted by the A. G. A. Approval Requirements Committee at its meeting on March 16.

Major significance of changes made is on a policy level, safety as always remaining the primary criterion for appliance construction and performance. Wherever possible, performance requirements were substituted for construction specifications in order to permit greater freedom of design and the use of new materials and fabricating methods. Requirements were not only simplified but the subject matter in the various texts was arranged in more logical order with related subjects grouped together.

The new requirements become effective January 1, 1949. However the Laboratories will test and certify equipment under them immediately upon request of the manufacturer. Texts for the following new editions of requirements adopted are being published and distributed to the industry as quickly as possible. When approved by the American Standards Association they will be printed as American Standard requirements.

1. American Standard Approval Requirements for Domestic Gas Ranges.
2. American Standard Requirements for Installation of Domestic Gas Conversion Burners.
3. American Standard Approval Requirements for Gas Space Heaters.
4. American Standard Approval Requirements for Portable Gas Baking and Roasting Ovens.
5. American Standard Approval Requirements for Hot Plates and Laundry Stoves.
6. American Standard Listing Requirements for Automatic Main Gas-Control Valves.

Domestic gas range requirements were most effected by the simplification program. Features eliminated will result in an estimated 25 percent reduction in text and consequently simplified test procedures. Cookie baking and preheating tests for ovens were deleted since it has been found by experience that the cake test is an adequate measure of oven performance.

Requirements for oven thermostats were clarified so that the optional use of either conventional or snap-acting controls will be permissible. Vertical projections on range tops for minimum vertical clearance are no longer required since performance tests take care of provisions for venting of top burners.

New venting requirements, adopted earlier in the year, permit ranges to incorporate one of three systems. These are a natural venting system; a mechanical forced draft system, or a design employing a combination of both systems which is under the control of the operator and yet insures satisfactory and safe performance. Research Bulletin 27 contains a suggested method of accomplishing the latter construction.

Requirements for ranges will be printed in a new type format. In the new text different type will be employed for the printing of the requirement itself than that

used for the test method. Thus the two will more readily be distinguished. It is planned to incorporate the same arrangement into other texts.

The complete new text on installation of conversion burners brings these requirements up to date according to recent developments. It also contains 16 illustrations of major factors important to proper installation in order to help the service man. Baffling of flues to obtain the correct neutral pressure point in a furnace is permitted by the new requirements.

The committee also recommended the publication if possible of a pocket-size edition of the installation requirements. A special subcommittee was appointed to work out methods of acquainting the industry with correct installation methods and popularizing them by presentation in non-technical language.

In addition to the adoption of the six sets of revised standards, the committee authorized action on three important matters closely connected with the requirements program.

Most important was authorization of a thorough review of laboratory test gases and pressures employed in the testing program to determine whether those now in use are fully representative of the gases currently distributed. Data are particularly desired in the case of liquefied petroleum gases and their mixtures with air in view of numerous changes taking place in recent years. Both propane and butane from natural gas and refinery sources will be studied with the main objective of selection of suitable test gases to make possible approval of equipment for liquefied petroleum gas-air mixtures as a class.

In order to save testing time and to permit manufacturers to more readily duplicate laboratory tests in their own plants, the committee authorized a new warm air furnace efficiency test. Effective immediately for both forced-air and gravity furnaces, a combined flue and jacket

(Continued on page 40)

Meet the Supervisory Staff at A.G.A. Pacific Coast Laboratories



Staff of Pacific Coast Branch, A. G. A. Testing Laboratories: (l. to r.) W. H. Vagan, supervisor; Frank Fiedler, Jr., assistant supervisor; Milo A. Dudden,

chief test engineer; James A. Stone, chief inspection engineer; Ellen A. Hoge, office manager, and Pieter Root, Jr., assistant chief test engineer

Gas Cooking Customer Total Increases

WITH 24,086,000 homes using gas for cooking on December 31, 1947, the gas industry now serves 7,767,000 more homes than on December 31, 1937, an increase of 48 percent over the ten-year period. More than 1,100,000 new cooking customers were added to gas utility and LP-gas distribution during 1947 alone, according to the Gas Appliance Manufacturers Association.

During the past ten years, 2,735,000 additional families purchased electric ranges, bringing the total number of electric cooking customers to 4,789,000.

Better than 90 percent of all homes on piped gas lines use gas for cooking, and approximately 62 percent of all homes in the United States cook with either piped or with LP-gas.

Rural LP-gas cooking customers total four million and have increased 900 percent since 1937. The number of electric range installations in rural territories totals 2,127,000.

Tappan LP-Gas Ranges Bear "CP" Trademark

PRODUCTION of Tappan LP-gas ranges built to "CP" standards is now well underway according to A. B. Ritzenthaler, vice-president in charge of sales, The Tappan Stove Co., Mansfield, Ohio.

This production followed almost immediately the decision of the Gas Appliance Manufacturers' Association, owner of the "CP" trademark, to license the use of the "CP" seal on LP-gas ranges which comply with certain high performance and safety standards.

No special experimental work was required to adapt Tappan LPG ranges to the new "CP" requirements, inasmuch as the current Tappan LPG models already were found to comply to them when automatic oven ignition with 100 percent shut-off of the oven pilot was added. Tappan city gas models with automatic oven ignition, having already been equipped with 100 percent shut-off of the oven pilot, it was a simple matter to apply that system to the LPG models. As a result, Tappan LPG dealers were the first in the entire industry to obtain LPG ranges bearing the "CP" seal.

Introduction of ranges built to "CP" standards into the LP-gas field is an event of major significance. It means that now, for the first time in history, LP-gas ranges can be supplied with clock control of oven.

Brooklyn Union Gas Sales Set New Record

MORE customers were served by The Brooklyn Union Gas Company in 1947 than in any previous year, according to Clifford E. Paige, chairman of the board, who recently reviewed the company's annual report to stockholders and employees.

All classifications of customers, residential,

commercial and industrial, contributed to the improvement in sales, both in revenue and volume, Mr. Paige said. Total gas sales for the year were 11 percent higher than in 1946. However, he added, the trend of company costs during 1947 was distinctly unfavorable.

To meet ever-increasing demand the program for the construction of additional manu-

facturing, storage and distribution facilities continued throughout 1947. Among major projects to be completed in the company's 25 million dollar expansion program are three water gas sets having a daily rated capacity of 10 million cubic feet each, two storage tanks providing additional storage totaling 27,600,000 cubic feet, and the pumping equipment

P.C.G.A. Exhibits at Home Economics Show



This Pacific Coast Gas Association exhibit in connection with the annual convention of the California Home Economics Association in San Francisco, March 20-23, was viewed by 1,500 members of the association, and showed a working unit in a school kitchen plus a demonstration kitchen as used by home economics teachers. The exhibit was manned by Pacific Coast home service representatives.

Home Service Conference Held in Illinois



Lois Wilson (far right), home service director, Iowa-Illinois Gas & Electric Co., demonstrating use of a dishwashing machine during a recent conference with the home service division members: (left to right) Sheila Dunagan, Rock Island; Mrs. Beverly Schick, Davenport; Mrs. Gertrude von Schrader, Ottumwa; Mrs. Jeanette Gardner, Moline; Jessie McQueen, home service counsellor, American Gas Association; Billie Weber, Cedar Rapids; Ardis French, Davenport, and Mrs. Emma Reynolds, Iowa City

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and distribution mains required to handle the larger volume of gas.

In addition to expanding its manufacturing and distribution facilities, Mr. Paige reported that the company has expressed keen interest in obtaining a supply of natural gas, if available on proper terms.

Gas Technology Short Course Committee Chosen

CHESTER L. MAY, vice-president, Lone Star Gas Co., Dallas, Texas, has been made chairman of the advisory committee for the third annual Short Course in Gas Technology to be held at Texas A & I College, Kingsville, Texas, June 2-4. The course will be sponsored again by the Southern Gas Association.

Pittsburgh Employees and Families Visit Open House

CLOSE to 450 employees of The Manufacturers Light and Heat Co., Pittsburgh, Pa., and an equal number of their relatives attended a Sunday afternoon open house in April throughout the company's recently modernized general offices (also the headquarters of seven associated gas companies forming the Pittsburgh Group, Columbia Gas System).

Points of interest included demonstrations of short wave radio emergency dispatching and the master control panel used in connection with the regulation of gas flow throughout the system.

Charles E. Bennett, president; Irving K. Peck, vice-president and general manager, J. C. Peterson, secretary; C. A. Massa, treasurer, and all department heads were on hand with greetings.

Philadelphia Gas House Heating Council Meets

GEORGE E. DECKMAN, Public Service Electric & Gas Co., Trenton, N. J., was elected president, Metropolitan Philadelphia Gas House Heating Council, at the final meeting of the season April 16 in the Edison Building, Philadelphia Electric Company.

Stanley Macfarlan, The Philadelphia Gas Works Co., was elected vice-president, and Samuel J. Dysart, Philadelphia Electric Co., Chester, secretary-treasurer.

A feature of the meeting was a panel discussion entitled "The New Look at Gas House Heating." Edward Bartlett as moderator brought out many points of interest to gas men and manufacturer representatives.

Reference Service

A NEW economic study of all phases of utility operations has been instituted by The Economic Reference, Inc., 88 Chestnut St., Ridgewood, New Jersey.

Planning Session Held on Refrigeration



A. G. A. Refrigeration Committee during meeting at plant of Servel, Inc., Evansville, Ind.: (standing l. to r.) P. A. Brown and John K. Knighton, Evansville; A. E. Hatley, Muncie, Ind.; E. A. Hesp, New York; J. J. Deely, Brooklyn; Karl Emmerling, Cleveland, O.; R. J. Canniff, Evansville, and R. A. Koehler, Newark, N. J. (Seated l. to r.) F. S. Parmenter, Los Angeles; George S. Jones, Jr., and Louis Ruthenburg, Evansville; B. H. Wittmann, Chicago; Margaret Anderson, Ann Arbor; Frank W. Williams, A. G. A. Also present were G. F. Edwards, Atlanta; R. J. Vandagriff, St. Louis, and Elliott Peabody, Indianapolis

Gas Display Prominent at Philadelphia



Part of combined gas industry exhibit sponsored by The Philadelphia Gas Works Company at the Philadelphia Home Show, April 5-10. The 3,000-square foot display was located directly opposite the main entrance so that none of the 250,000 visitors at the show could miss it, and was designed by T. J. Taylor, the gas company's display division supervisor. Among the other exhibits was a modern dwelling called the "Industry-Engineered" home, completely equipped with modern gas appliances

A.G.A. Southwestern Personnel Conference

AN informal discussion of specific problems facing gas companies was held during an important session of the American Gas Association Southwestern Personnel Conference at the Galvez Hotel, Galveston, Texas, March 23. Under the chairmanship of Willard G. Wiegel, personnel director, Lone Star Gas Co., Dallas, the conference discussed some interesting gas company practices and trends.

Though a general appreciation was evidenced of the importance of keeping supervisors informed, most of the companies represented at the conference indicated that they are searching for methods of doing a more thorough job. Two schools of thought were disclosed.

The first school believed that supervisors cannot be expected to know the details of such matters as an involved pension plan, a group insurance or hospitalization plan, to satisfactorily explain the details to employees.

The second school believes that it is advisable, if not necessary, to expect supervisors to explain such matters to their men. Several companies added that they have established definite policies on leaves for military service. A review of holiday practices uncovered some interesting practices.

Wendell R. Horsley, director of placement and personnel relations, Texas A. & M. College, reported that the demand for college graduates still exceeds the supply and each graduate has a choice of several offers. He expressed the belief that graduates are more interested in the future possibilities of a position than they are in the beginning salary.

Next meeting of the personnel group will be held in Birmingham, Ala., Monday, June 7. Robert P. Marshall, personnel director, Memphis Natural Gas Co., and secretary of the conference, will gladly send any gas company in the area an invitation to be represented.

A. G. A. Convention Plans



A PREDICTION that the 1948 convention of the American Gas Association in Atlantic, N. J., the week of October 4 will be the greatest in the history of the gas industry, was expressed recently by Lyle C. Harvey, president, Bryant Heater Co., Cleveland, and chairman, Exhibition Committee, Gas Appliance Manufacturers Association.

The 1948 meeting will probably attract a record attendance, according to Mr. Harvey, and will offer a varied and completely new program of interest to every segment of the industry. He called particular attention to the schedule for Thursday and Friday of the convention which as planned will be of wide interest to manufacturers, dealers and to liquefied petroleum gas appliance dealers.

In view of the great demand for reservations and the record attendance anticipated, persons desiring to attend the conference are urged to file applications for hotel reservations immediately with the A. G. A. Housing Bureau 16 Central Pier, Atlantic City, New Jersey. Additional copies of the application blank can be obtained from the American Gas Association in New York.

Air Conditioning Features Texas A. & M. Conference

AS all-year air conditioning, one of the gas industry's newest load builders, occupied a prominent spot on the program of the fourth annual air conditioning conference under the direction of the Texas A. & M. College at College Station, April 26-28. The conference drew an attendance of approximately 200 representatives from the air conditioning industry.

Natural gas and gas all-year air conditioning were given a full day on the program. L. L. Ladewig, Houston Natural Gas Corp., Houston, Texas, chairman, American Gas Association All-Year Gas Air Conditioning Com-

mittee served as chairman of the morning session on Tuesday. Development of the gas absorption refrigeration and air conditioning system was described by Dr. Norton E. Berry, Servel, Inc., Evansville, Ind. Also on the morning program was Joe K. Hawk, F. J. Evans Co., Birmingham, Ala., who delivered an excellent paper on chemical dehumidification.

C. A. McKinney, United Gas Corp., Houston, Texas, was chairman at the afternoon conference on Tuesday. Included at this session were discussions on the Regenchil system of air conditioning by C. S. Bauman, Tex-Air Air Conditioning Co., Fort Worth, Texas, and on venting of modern gas appliances by Arthur Theobald, Payne Furnace Company.

"CP" Gas Range Sales Reach All-Time High

SALES of automatic gas ranges built to "CP" standards reached an all-time high in 1947, and are currently running at better than 36 percent of city gas models produced by the 19 manufacturers in the "CP" program, according to the Gas Appliance Manufacturers Association. 1947 sales records were made despite shortages of automatic controls which held back production in the first quarter, and despite production difficulties which prevented several manufacturers from producing "CP" models.

With all U. S. manufacturers in the "CP" group engaged in volume production of these models, and with the introduction of "CP" models for the growing LP-gas field, auto-

A. G. A. Natural Gas Department Spring Meeting in Houston, Texas

May 4 and 5

Will be reported in the
June MONTHLY

matic gas ranges built to "CP" standards are expected to absorb the major part of manufacturers' production schedules in 1948.

Demand for automatic gas ranges, evidenced by surveys made prior, during, and just after the war, has been greatly accentuated by the industry-wide Gas Has Got It automatic gas range promotional campaign launched October 1, 1947 and spearheaded by the large national advertising campaign of the American Gas Association. The industry will spend close to eight million dollars in 1948 to promote the sale of automatic gas ranges built to "CP" standards.

Gas Range Manufacturer Wins Safety Award



Lewis & Conger presented its annual home safety award for 1947 to Grand Home Appliance Company, Cleveland, Ohio, for the "Safe-Tee-Kee" on its gas ranges, during a safety award dinner held in New York, April 13. Richard V. Lewis (left), president, Lewis & Conger, and James Mitchell, president, Grand Home Appliance Company, are shown with the cherished award. The jury was composed of five nationally known authorities in the fields of home safety and home equipment.

HOW TO "TAME" THE LP-GIANT

(Continued from page 8)

just as effectively as though they had constructed a wall around the urban areas. This group frequently even came inside towns and cities where natural or manufactured gas was being served, and connected many present or potential customers of these utilities to LP-gas.

Due to inadequate customer service rendered by a large percentage of LP-gas distributors, particularly where tanks are used to supply a complete fuel service for the home, the prestige of the LP-gas business is waning in many quarters. This could have been avoided entirely, in my opinion, had the gas utilities showed proper initiative and aggressiveness, and assumed the responsibility for rendering all types of gas service in the areas served by them.

Constructive Job

A constructive job by skilled and experienced gas utility people is sorely needed; and I see no reason why we have not considered it our obligation to provide it. Make no mistake about it, the L.P.G. business is going to have a substantial place in the gas business in this country.

While the supply of butane is somewhat limited, due to its value in blending into certain grades of motor fuel and its use in the manufacture of many chemical products, the potential production of propane is immense and the current wholesale market price for this product is encouraging the addition of equipment in many plants for its production. In addition to millions of new L.P.G. customers during the next decade, I predict that a large percentage of present so-called "bottle gas" propane users throughout this country will change to tanks of from 350 to 500 gallons capacity, in order to enjoy the comforts of a complete and economical gas service in their homes. If this business is to be successful in the future, some integration and a more sensible and efficient handling of it must be realized or it may fall into such disrepute that the rural home may lose its attraction due to unavailability of adequate and satisfactory fuel service.

The amazing number of 35,000 L.P.G. distributors and dealers, with the

list still growing, means that there are approximately that many managers in the business and that many different ideas of how the service should be rendered. Unfortunately for the public, it appears that the sole incentive behind many of the people entering this business was the profits to be derived from the sale of equipment, tanks and gas burning appliances. Comparatively few had any prior experience in rendering a gas service and probably most of them failed to recognize any public responsibility. Thousands of these distributors are competing with each other and there is a minimum of exchange of opinions between them. There is today almost a complete lack of service standards to follow and it is little wonder that the business, almost as a whole, is confused, chaotic and jumbled. The millions of present and future customers cannot be expected to remain tolerant with unsatisfactory service and they will demand improvement.

As described in the March *Fortune* Magazine, "The L.P.G. industry is still a profusion of big and little people, operating in different ways, shouting and whispering different things and looking in different directions. . . . The vast body of the industry is the country-wide swarm of small and not so small independent distributors and dealers that sell the stuff under their own brands,—Dri-Gas, Bu-Gas, Nat-Gas, Rapid Thermogas, Hydrogas, General Gas and Who-Knows-What-Gas."

I cannot escape the feeling that the natural gas industry has some serious and vital questions confronting it in connection with this problem, which is gradually assuming national importance—questions which demand an answer in the immediate future.

Are we, as an alert and progressive natural gas industry, going to completely ignore this type of gas business? Are we conscious of the fact that when electric appliances are purchased for use in rural homes, this is gas business lost to a competitor? Are we going to take the position that our responsibility to the public in our operating territory is tightly confined to the citizens in the towns and cities which we serve?

It is my considered opinion that the natural gas utilities have an obligation to either become actively interested in investing and operating in the L.P.G.

Ohio President Installs New Freedom Gas Kitchen



Recently certified New Freedom Gas Kitchen in the home of Spalding Peck, president, The Lake Gas Co., Russells Point, O., which has created considerable favorable comment and has been effective in making appliance sales for that company. Principal items are a "CP" gas range, modern gas refrigerator, and automatic gas water heater

business, or that they should vigorously seek to give the benefit of their knowledge gained through long years of experience in developing a splendid gas service, in which we justly take pride, to those in the L.P.G. field who may have little or no conception of what is necessary to render an efficient and highly satisfactory service, or of the public responsibilities they have assumed when they entered into this business."

There is a weird and staggering giant stalking hither and yon in our midst. There is much we can do to help him, but the hour for decision is growing late—yes, very, very late.

Notes from F.P.C.

● Texas Gas Transmission Corp., Owensboro, Ky., has been authorized to acquire by merger and to operate the facilities of Memphis Natural Gas Company and Kentucky Natural Gas Corporation for the transportation and sale of natural gas.

Memphis operates a natural gas transmission pipeline system originating in Louisiana and extending through Arkansas and Mississippi into Tennessee where the greater part of the gas is sold to Memphis Light, Gas & Water Division, City of Memphis.

Kentucky owns and operates a transmission pipeline system in Indiana, Illinois, Kentucky and Tennessee.

TECHNICAL CONFERENCE

(Continued from page 34)

gives an accurate check of the condition of protected lines.

(3) Improved coating technique is developed from analysis of causes of failures.

(4) Reconditioning practices are improved. Men become more alert if the work can be reliably checked.

In the discussion following Mr. Cramer's paper, N. B. Peifer, The Manufacturers Light and Heat Co., Pittsburgh, and M. C. Miller, Ebasco Services, Inc., New York,

furnished important additional information.

A group of unusual films of the gas industry held a large audience at the Wednesday afternoon general session until the final conclusion of the conference. Without exception the films were popular and provided a dramatic and novel way of presenting some of the industry's most advanced practices in a manner that will be long remembered.

This five-feature presentation consisted of the following:

Composite film on construction and maintenance—Rochester Gas and Electric

Corp., Michigan Consolidated Gas Co., Public Service Electric and Gas Co., and The Laclede Gas Light Company.

Placing 12-inch wrapped pipe in an 18-inch concrete conduit by the flotation method—San Diego Gas and Electric Company.

Gas main construction—Pacific Gas and Electric Company.

Bringing natural gas to Nashville—Nashville Gas and Heating Company.

Painting gas holders by the flotation method—Consolidated Edison Co. of New York, Inc.

From the standpoint of attendance, close attention to business, number of men participating in the program, and the wide variety of timely topics discussed, this first "triple-threat" conference made an impressive score.

THEY LIKE TO PAY THE EASY WAY

(Continued from page 12)

Drivers can make a right or left turn into the U-shape drive and can turn either way after paying their bills.

As for the teller's job, usually she is a very busy lady. When not serving a customer, she does various phases of clerical work. Her booth is easily accessible to the company's accounting office which provides her with filing, sorting, and the like. Her flexiphone keeps her in contact with other departments. Being handy to the accounting records (when she is not busy receiving payments), she opens mail remittances, receipts mail bills, and performs many other important duties.

Pay Stations Really Pay

Those who have had experience with drive-in pay stations believe they soon will become a necessity as parking problems become worse. Other companies have dreams of new drive-ins, but at The Ohio Fuel Gas Co., Columbus, it looks as if their dream is coming true. The architect's sketches of building, lay-

out, and blueprint (Figures 8 and 9) give a good conception of tentative plans. Two driveways, running in the same direction, enter the pay station from a fairly busy street. Cars leave the lot and enter onto a busy thoroughfare. Ohio Fuel reports that plans for a new station include customer rest rooms, two display windows, and attractive landscaping. Inside the structure, a burglar-proof safe is to be installed so that collections can be housed on the spot. In brief, the Columbus drive-in pay station will be a complete unit in itself.

The opinion of persons experienced with such undertakings is that a drive-in pay station need not be located next to the main building. Any centrally located spot available would be practical.

Here then are general descriptions of the most popular plans now in progress for customers to pay their bills. Each plan may present particular problems in your own community. Take the plan which fits your customers' needs and tailor it to fit their convenience. Provide an "easy way for them to pay," and your company will enjoy the rewards of good will and customer satisfaction.

PAYMENT OF BILLS RECORD

Year	Percent of Bills Paid Directly To Tellers	Percent of Bills Paid By Mail	Percent of Bills Paid in Night Box	Percent of Bills Paid to Authorized Pay Stations
1938	79.8%	14.3%	5.9%	
1939	68.6	20.6	10.9	
1940	63.9	24.4	11.7	
1941	60.5	25.9	13.6	6.0%
1942	52.0	30.1	11.9	
1943	42.5	22.5	5.6	29.4
1944	40.2	23.2	4.7	31.9
1945	36.8	25.0	4.4	33.8
1946	35.9	26.8	4.0	33.3

APPROVAL STANDARDS

(Continued from page 35)

loss method will be used. If the appliance is found unsatisfactory or exhibits critical results, a referee retest will be conducted using the present Thomas meter procedure. Research is being conducted on a method of further simplifying the test method.

Also authorized was the appointment of a Los Angeles working committee to rule on problems arising on the West Coast in connection with the certification of gas water heaters. A working committee for central heating appliances has existed for some time and the action was taken as a result of the success of this committee's activities.

I. G. T. Receiving Graduate Fellowship Applications

APPLICATIONS for graduate fellowships are currently being received by the Institute of Gas Technology, Chicago, Illinois.

A two-year program leads to the degree of master of gas technology, and students who show marked ability are encouraged to continue in the full four-year program leading to the degree of Ph.D. in gas technology. Elective courses are taken at Illinois Institute of Technology and it is possible to select electives as to complete a major in an allied field such as chemistry, chemical or mechanical engineering. Summer employment training in the gas industry is required.

In addition to the remuneration for summer activities, fellows receive \$125 a month for ten months, in addition to exemption from tuition and fees. Ex-servicemen are entitled to the usual allotment under the G.I. Bill of Rights. All remuneration is tax-free. Those interested should apply to E. S. Pettyjohn, director, Institute of Gas Technology, 3300 South Federal St., Chicago.

Personal and Otherwise

Malony Promoted At Bridgeport



R. A. Malony

ADVANCEMENT of Ronald A. Malony to the position of executive vice-president, The Bridgeport Gas Light Co., Bridgeport, Conn., was announced recently at a directors' meeting. At the same time Mr. Malony was appointed a director of the company.

For more than a decade he served as sales manager and personnel director of the company, and was advanced to assistant to the president in 1945.

Prior to coming to Bridgeport, Mr. Malony spent ten years in various United Gas Improvement company subsidiaries, including the Philadelphia Gas Works Co., of which he was assistant sales manager, and the Philadelphia Electric Company. He became associated with The Bridgeport Gas Light Company in 1934.

He has been active in the American Gas Association and other utility trade organizations.

New Jersey Firm Expands Engineering Services



P. E. Peacock, Jr.

HEMERSON THOMAS, head of H. Emerson Thomas and Associates, Westfield, N. J., has announced a program of expanding engineering and contracting services on LP-gases to the industry.

Mr. Thomas has been prominent in the LP-gas business for nearly 20 years. In addition to his consulting activities, he is also president of nine gas utility companies, operating 12 properties. He is also operator of a number of bottled gas companies.

Paul E. Peacock, Jr., manager, Martinsburg

Gas and Heating Co., Martinsburg, W. Va., one of Mr. Thomas' utility companies, has resigned from that position and will move to Westfield where he will now be associated with H. Emerson Thomas and Associates.

The Westfield firm is working at the moment mainly on standby installations in the natural and manufactured gas areas to augment mainly curtailed supplies.

Rio Grande Valley Gas Men Promoted



L. O. Vogelsang



W. H. Meredith

L. O. Vogelsang has been promoted from general manager to vice-president, Rio Grande Valley Gas Co., Brownsville, Texas, and W. H. Meredith, Brownsville, has been appointed treasurer, according to an announcement by O. P. Wilson, Stamford, Conn., president.

Mr. Vogelsang's election puts a major executive of the corporation in the Valley. For the present he will continue to act as general

manager with offices in Brownsville.

Under his management, an eight percent reduction in the rate to domestic gas users has been effected and an extensive program of the company's facilities has been initiated.

Mr. Vogelsang is co-author of the book, "Practical Air-Conditioning."

Mr. Meredith will continue in the capacity of assistant secretary. He came to the Valley with Hope Engineering Company when they were engaged in building the complete gas pipeline system for the Rio Grande Valley which was later turned over to the gas company. He then joined that organization as assistant secretary and assistant treasurer.

Since the company started in 1927 it has expanded its facilities to cover the entire Valley and now serves 23,000 customers.

Nash Made New York And Richmond Treasurer

JOHN F. NASH, assistant treasurer, New York and Richmond Gas Co., Staten Island, N. Y., since February 1946, has been named treasurer, according to an announcement by John Kohout, president.

Mr. Nash, whose appointment to the treasurer's post was voted by the board of directors, has been with the firm since February 1942. Prior to then he was with the Public Service Commission of the State of New York.

Other firms with which he has been affiliated include Westchester Lighting Company, Mt. Vernon, N. Y., and the Union Pacific System, where he held assignments in Omaha and Los Angeles.

Eacker Named Boston Consolidated Head



E. H. Eacker



E. M. Farnsworth

president, Old Colony Gas Co., a position which he still retains. He is a trustee of Eastern Gas & Fuel Associates, and president, Brookline Savings Bank.

Mr. Eacker is a director and member of the Executive Board, American Gas Association, and has served as a member, Managing Committee, A. G. A. Manufactured Gas Department, and many other important gas industry groups. He is a past-chairman of the Association's former Special Committee on Economic and Market Research Needs.

A graduate of Massachusetts Institute of Technology, Mr. Eacker entered the utility business with the Charlestown Gas & Electric Company in 1923, becoming general superintendent in 1926.

In 1931, following acquisition of the Charlestown company by Boston Consolidated Gas Co., he was made assistant to the latter company's vice-president in charge of distribution, and in January 1937 became assistant to the general manager. He was named assistant to the president in September 1937 and vice-president in May 1942.

Mr. Eacker has served on various committees in The New England Gas Association and is a director, American Standards Association.

Central Indiana Personnel Advance

JCHESTER GREY, JR., has been named manager in charge of the Anderson division, Central Indiana Gas Co., Muncie, Ind., succeeding H. Wayne Thornburg, who served as division manager since January 1, 1923, Guy Henry, president, has announced.

Mr. Thornburg will become director of public relations. Mr. Grey recently joined the Central Indiana Gas Company after having been with Public Service Electric & Gas Co., in New Jersey since 1931. He is a member of the American Gas Association, New Jersey Society of Professional Engineers, and New Jersey Gas Association.

Crouch To Retire from Robertshaw-Fulton

WD. CROUCH, general manager, commercial and industrial division, Robertshaw-Fulton Controls Co., Youngwood, Pa., has announced his intention to retire July 31, 1948, following 30 years of service.

He is recognized as an authority on thermostats and their proper application to all types of cooking and heating equipment, and has been active on many committees of the American Gas Association, Gas Appliance Manufacturers Association, and Food Service Equipment Industry. In recognition of his contributions to the gas industry he was re-

cently elected a member of the A. G. A. "Hall of Flame."

His responsibilities as commercial and industrial division general manager will be assumed by E. J. Horton, assistant to the president.

Pender Moves Up at Robertshaw-Fulton

THOMAS H. PENDER recently was named advertising manager and director of public relations, Robertshaw-Fulton Controls Co., Grayson Controls Division, Lynnwood, California. Announcement was made by T. T. Arden, executive vice-president.

Mr. Pender has had wide experience in the gas controls field, becoming associated with Grayson Controls in 1933. Since then he has filled many positions within the organization including personnel manager and most recently director of industrial relations.

Rockwell Official Retires

RETIREMENT of W. M. Myler, assistant treasurer, Rockwell Manufacturing Co., Pittsburgh, Pa., was effective March 31, 1948.

Mr. Myler served the firm for 46 years, starting with Pittsburgh Equitable Meter Company as a bookkeeper and five years later being promoted to assistant secretary-treasurer. He became assistant treasurer when Pittsburgh Equitable Meter Company became a Rockwell division.

UTILITY FINANCING

(Continued from page 5)

Group B companies, to the extent rated, were of Double A credits, while A and Baa credits uniformly fell in Group C. At June 30, 1947, Moody's Triple A sold on a 2.53 percent average yield basis; Double A on a 2.60 percent basis; A on a 2.72 percent basis and Baa at 3.05 percent. At the year end these were 2.88, 2.98, 3.08 and 3.29, respectively. The recent modest improvement in the bond market has lowered these yields, as of April 1, to 2.77, 2.89, 2.99 and 3.28, respectively. You will note the least improvement in the weaker Baa rating.

From the foregoing it is obvious that it is enlightened self-interest for any utility company to keep its structure, as nearly as possible, in sound balance so that it may realize a favorable investors' appraisal of its securities, whether they be bonds, preferred stocks, common stocks or securities dressed up with vari-

ous wrinkles in an effort to make them more marketable at a better price.

The relation of the equity cushion to the amount of debt is important from the institutional legality standpoint in some important States.

One state, Connecticut, has a provision with regard to eligibility of utility bonds for savings banks that "the funded debt of the corporation shall not exceed the sum of its capital stock and surplus." This is more restrictive than that of the legal requirement in any other important savings bank state with which I am familiar.

In New York, Pennsylvania, Minnesota, and Washington, the requirement is that the outstanding capital stock shall, at the time of investment, be equal to at least two-thirds of the total debt. In Massachusetts the requirement is that the capital stock and surplus shall be equal to at least 60 percent of the total funded debt. To keep a broad market for its securities, I can well see how

a utility company would think long before it let its debt increase to a point that made its bonds ineligible for savings banks in Massachusetts, New York, and Pennsylvania.

The problem of marketing preferred and common stocks is much more serious. At the peak of the preferred stock market in the summer of 1946, this form of financing was very attractive, and Moody's Average High-Grade Public Utility Preferred Stocks for a number of weeks were at a 3.40 percent basis. There was a marked change in this situation, however, during the later months of 1946 and 1947, and in February 1948 this same average was 4.07.

There has been a slight improvement in the preferred stock market in recent weeks, and the latest average is reported at 3.99. These averages, however, do not reflect the recent new issue market and new issues of preferred stocks, to be successfully distributed, have had to be offered at yields substantially higher than those represented by the averages of outstanding shares and, in many cases, substantially higher than the yields of outstanding preferred issues of the same company.

I have recently received a copy of an address by George Woods, chairman, executive committee of Boston, which goes into great detail on the necessity of modification in the regulations if we are going to do business on an equity finance basis. I commend Mr. Woods' paper to you. I am sure copies will shortly be available.

This is perhaps a good place to say a word about sinking or purchase funds for public utility preferred stocks.

Preferred Stocks

For many years preferred stocks, particularly of certain types of industrials and particularly in the case of smaller and less known companies, have had various types of sinking or purchase funds. These have served a dual purpose: (1) to create some market for the securities themselves, and (2) to gradually retire the issue. During the low-yield period in 1946, a number of large institutional purchasers, recognizing the unlikelihood of the permanent maintenance of such preferred stock yields, many of which were as low as 3½ percent, began to insist on sinking funds.

particularly in issues privately placed or where the market was not likely to be sufficiently broad to furnish a ready means of selling.

In my opinion, the inclusion of a sinking fund (or to a lesser degree a contingent purchase fund) is an undesirable procedure and should be adopted only as a last resort. As far as can be foreseen, an electric or gas distributing public utility is a permanent enterprise which will require expansion as long as the population of this country continues to grow. Therefore, to obligate yourself to retiring what should be permanent capital creates an obligation if you have the earnings just as real as any other debt but without receiving either the lower interest rate or the important Federal tax advantage realized from interest paid.

I think, in the long run, a public utility company will be better advised to pay, if necessary, somewhat higher dividends without a sinking fund because, after all, the rate of return in a regulated industry has relation to the cost of money.

Prices for common stocks have undoubtedly been adversely affected by the unenforced divestment of portfolio common stocks out of public utility holding companies as well as by the requirements of the operating companies themselves for new capital. On new offerings of common stock, the yield has had to be, and will probably continue to have to be, exceedingly attractive. The spread between the yields on senior securities and those of common stocks are now probably much wider than they have been at most past periods. Indeed, at times the yields on common stocks have been lower than those on many fixed return securities, reflecting the hoped-for future growth factor.

The narrowness of the market for large issues of common stocks, over the recent past, can be well understood when you consider their relative unattractiveness to large investors by reason of the high surtax rates, the capital gains taxes and other factors. The recent revision of the tax law may go some little way to improve this situation, but to broaden, and make more active the common stock market there should be some elimination of the double taxation, first paid by the corporation on earnings and then by the individual on his dividends. There

should also be at least a modification of the capital gains tax so that the purchaser is not frozen in by the amount of the capital gains tax on successful investments without any substantial credit for losses.

Certainly at present deflated prices, there is no good reason for a 75 percent margin requirement. Of course I agree we should not return to shoe-string speculation but why an individual can borrow only 25 percent on the most marketable asset in the world, listed securities, when on most other forms of wealth, not nearly so liquid, he can borrow practically whatever the lender is willing to let him have, I cannot understand.

Debentures convertible into common stock have been adopted by a number of corporations as an alternative to the direct marketing of their common stocks. The principal disadvantage is one of mechanics involving use of bonds in one hundred dollar pieces, and the problem of the small stockholder who usually receives only fractional rights to subscribe and to whom the subscription itself is probably hardly suited with its low interest rate.

Two recent instances of the use of convertible debentures in the electric and gas utility field, were the 16,677,100 dollars Consolidated Gas of Baltimore 15-Year 2½'s, offered in April 1947, and the 11,753,800 dollars Virginia Electric & Power 15-Year 3⅓'s offered in March of this year. In each case debentures were offered to stockholders at

par, and are now selling for substantial premiums: Baltimore at 105½ and Virginia Electric & Power quoted at 108—8¾. The conversion, in the Virginia case, was right on the market at the time of the offering. The Baltimore conversion was somewhat under the market and based on a sliding scale by which the first conversions were at a more attractive rate. Also, the conversion privilege in the Baltimore case did not operate until something more than a year from the date of offering, thereby protecting the outstanding common against immediate dilution before the money raised through the debentures might have been put to work and begun to produce earnings.

It would look as if companies which can finance a substantial part of their capital requirements by debt securities are in a pretty comfortable position and ought to be able to issue the conventional 25- or 30-year bond at attractive rates. As they appear over a period of years the problem of preferred and common stock is more serious as I have pointed out for the reasons I discussed.

I think it is important that we lend all our efforts to get a realistic modification of the provisions of tax laws and the other regulations which restrict and hamper the market for equity securities. Mr. McEntire's talk indicates how sound it is for each company to the limit of its ability to create and keep a sound capital structure so as to realize the best prices from the public to various classes of securities.

Obituary

HARRY L. NICKERSON, chief engineer, The Brooklyn Union Gas Co., Brooklyn, N. Y., died March 25 at Brooklyn Hospital. He was 65 years old.

A member of the American Gas Association and prominent for many years in technical work of the Association, Mr. Nickerson was widely known in both professional engineering circles and in the utility field, having spent his entire business career with gas utilities.

He was employed by The Peoples' Gas Co., Chicago, Ill., in 1906 as a laboratory assistant and testing engineer. In 1907 he joined Bos-

ton Consolidated Gas Co., Boston, Mass., as assistant superintendent.

Later he was transferred to the construction department and afterwards to the Everett Water Gas Plant, a subsidiary. He next went to New England Gas & Coke Co., Everett, where he remained until 1917 when he returned to Boston Consolidated as superintendent, Commercial Point Works. About a year later he was transferred to Everett as superintendent, Everett Water Gas Plant.

Mr. Nickerson joined The Brooklyn Union Gas Company in 1925 as engineer of manufacture and in January, 1940 was elected chief engineer. During this period substantial additions to the company's manufacturing and distribution system were made under his direction.

He is survived by his widow, Harnet.

Associated Organization Activities

Maryland Group Holds Large Annual Meeting

APPROXIMATELY 450 persons attended the annual meeting of The Maryland Utilities Association, April 2, in Baltimore, Maryland. Adrian Hughes, Baltimore Transit Co., was elected president.

Other new officers are: vice-president—R. Roy Dunn, vice-president and treasurer, Potomac Electric Power Co., Washington, D. C.; treasurer—J. Carl Fisher, manager, general service, Consolidated Gas Electric Light & Power Co. of Baltimore; secretary—Raymond C. Brehaut, manager of suburban companies affiliated with Washington Gas Light Co., Washington, D. C.

During the afternoon session which was the main event of the meeting, R. C. Simpson, manager, industrial relations, Gilbert Associates, Inc., discussed the effect of employee relations on public relations. N. E. Funk, executive vice-president, Philadelphia Electric Co., discussed the threat to utility earnings created by the rising price of fuel, labor, and materials as applied both to operation and construction costs.

Another guest speaker, Fergus J. McDiarmid, second vice-president, Lincoln National Life Insurance Co., presented a penetrating analysis of probably the most difficult financial problem facing utilities today—raising money for plant expansion.

Southern Gas Association Holds Annual Workshop

MRS. WINNELL SIMMONS, Houston Natural Gas Corp., Houston, Texas, chairman, Southern Gas Association Home Service Committee, presided March 24 during a fast-moving workshop at the S.G.A. annual convention in Galveston, Texas. The workshop was sponsored by the S.G.A. committee in cooperation with the American Gas Assn., Home Service Committee.

Following opening remarks by W. Lee Woodward, S.G.A. president, the home service department, Oklahoma Natural Gas Co., presented a travelogue used for home service classes in schools showing gas equipment in the preparation of dishes from many different countries. The finished products were then displayed under the flags of the respective countries.

"Nationally Speaking," a talk by Elizabeth

Lynahan, The Peoples Gas Light & Coke Co., Chicago, Ill., and chairman, American Gas Association Home Service Committee, included a description of current work of that committee. Miss Lynahan showed samples of booklets and played some of the new A. G. A. playlet recordings on "Careers in Home Service."

Southwestern Bell Telephone Company gave a showing of its film "Telephone Courtesy," following which Julia Hunter, Lone Star Gas Co., Dallas, Texas, reported on a reader survey to determine preferences in reception formation.

Final event on the morning program was an absorbing talk by Mildred Clark, Oklahoma Natural Gas Co., entitled "Automatic Oven Meals," presenting suggestions for customer instruction using clock control.

S.G.A. Holds Most Successful Convention

GALVESTON, TEXAS, was the scene, May 24-26, of the most successful convention in the history of the Southern Gas Association, according to W. H. Ligon, president, Nashville Gas & Heating Co., and president-elect of the southern gas group.

More than 1,200 delegates from 13 southern states, attended the more than 50 business sessions, discussions and demonstrations led by nationally known authorities in many fields.

Of considerable interest to the industry as a whole, was a general session luncheon talk by Dr. Paul C. Aebersold, chief of the Isotopes Division, Atomic Energy Commission, Oak Ridge, Tennessee. Dr. Aebersold pointed out that there is no doubt in the minds of the nation's scientists that atomic energy will be an important source of power within the next ten to 20 years.

Chester L. May, vice-president of the Lone Star Gas Company, Dallas, spoke to the general session on the "Future of L.P.G.," stating that the industry faces several serious and vital questions which will demand an answer within the near future. Mr. May's talk is printed on page xx of this issue.

"It's possible that the number of liquefied petroleum gas users in the United States may

eventually be equal to, or even pass the number of natural gas consumers," he stated, "and the natural gas industry has an excellent opportunity to render an interim fuel service by using L.P.G. until it becomes practical to make natural gas service available to outlying districts."

W. Lee Woodward, Zenith Gas System, Inc., Alva, Okla., S.G.A. immediate past-president, warned that higher natural gas rates to the consumer are "inevitable." Speaking to the general session, Mr. Woodward pointed out that "rising operational costs make these price hikes inevitable for some companies."

Communication improvements in both radio and telephone were covered by Dr. Dan Nobel, vice-president and director, Motorola, Inc., Chicago and W. B. Hardin, Houston, Southwestern Bell Telephone Company engineer.

Discussing recent developments in FM radio, Dr. Noble told of legislation now pending that would tend to "tie-up" mobile communications to a point of jeopardizing our national safety.

"There just are not enough channels to go



1948-49 S.G.A. officers: (left to right) Carl H. Horne, Birmingham, Ala., second vice-president; W. H. Ligon, Nashville, Tenn., president, and L. L. Baxter, Fayetteville, Ark., first vice-president

around," Dr. Noble said, "and the resolution, No. 78, would require the F.C.C. to give the FM broadcasting group a section of the 50 megacycle band now marked for mobile users." The gas and power industries have so much at stake, he added, that the fight against the measure should have the industry's fullest support.

W. B. Hardin described the mobile telephone system now operating in Houston and more than 80 other U. S. cities whereby customers may make use of the regular mobile service available, or may, through cooperation with the telephone company, develop specialized installations designed to suit particular problems encountered in industry.

Dr. Alfred P. Haake, economic consultant to General Motors Corp., spoke on the motivating force in American business profit. Dr. Haake expressed the opinion that the recent income tax cut would tend to be inflationary in spite of a continued shortage of goods.

New S.G.A. officers, elected at the Galveston meeting were, in addition to Mr. Ligon as president were: L. L. Baxter, president, Arkansas Western Gas Co., Fayetteville, first vice-president; Carl H. Horne, vice-president, Alabama Gas Co., Birmingham, second vice-president.

Serving as treasurer during the coming year will be Lyman L. Dyer, comptroller, Lone Star Gas Co., Dallas; while E. T. Anderson, assistant secretary, Atlanta Gas Light Co., Atlanta, Ga., will be association secretary.

The 1948-49 directorate includes J. H. Smith, Peerless Manufacturing Co., Dallas; A. H. Weyland, Arkansas Louisiana Gas Co., Shreveport, La.; H. K. Griffin, Mississippi Gas Co., Meridian, Miss.; John C. Flanagan, United Gas Corp., Houston, and R. F. Hinckley, West Texas Gas Co., Lubbock, Texas.

Wisconsin Utilities Group Honors Schubert

W. E. SCHUBERT, vice-president and general manager, Wisconsin Michigan Power Co., Appleton, Wisc., was elected president, Wisconsin Utilities Association, for the fiscal year beginning May 1.

Carl E. Altenbernd, vice-president and general manager, Wisconsin Southern Gas Co., Burlington, was elected vice-president, and Paul J. Imse, secretary-treasurer, Milwaukee Gas Light Co., Milwaukee, Wisc., was elected treasurer.

Special Libraries Group To Convene in Washington

FUTURE indicative is the theme for the Special Libraries Association's thirty-ninth annual convention to be held in Washington, D. C., June 6-11 with headquarters at the Hotel Statler.

Nearly 1,000 librarians from business and industrial organizations, hospitals, museums, newspapers, legislative research offices, and special divisions of public and university libraries throughout the United States and Canada are expected to attend.

Nugent Elected President of G.A.M.A.



Newly elected G.A.M.A. officers who will take office October 1, 1948: (left to right) Frank J. Nugent, Cleveland, Ohio, president; Stanley H. Hobson, Rockford, Illinois, first vice-president; Frederic O. Hess, Philadelphia, Pennsylvania, second vice-president; John Van Norden, New York, treasurer

NEW enlarged promotional programs, expanding marketing and statistical activities designed to create new markets and reduce sales costs, plans to aid dealers in increasing their sales, and greater emphasis on the LP-gas potential market, highlighted the thirteenth annual meeting of the Gas Appliance Manufacturers Association at the Drake Hotel, Chicago, April 5-7.

Stating that the buying public is still in need of gas appliances in volume, Hudson W. Reed, president, American Gas Association and The Philadelphia Gas Works Co., Philadelphia, Pa., advocated lowered manufacturing costs wherever possible and the cutting down of excessive mark-ups. He urged greater concentration on the study of market conditions and sales techniques.

President of the Gas Appliance Manufacturers Association, John A. Robertshaw, Robertshaw-Fulton Controls Co., stated that manufacturers were handicapped by manufacturing inefficiencies of parts producers. He stated that labor and management relations are improving.

H. Leigh Whitelaw, G.A.M.A. managing director, reported that the association now has the largest membership in its history with 525 manufacturers of gas appliances and equipment. He highlighted efforts being made by gas utilities and pipeline companies to obtain the steel requirements for the industry.

L. A. Brand, vice-president, Empire Stove Co., emphasized the conflicting codes and regulations which various state and municipal authorities were adopting for LP-gas regulations, and urged uniformity so as to enable all phases of the gas industry to provide the most effective service.

The manner in which gas utilities are utilizing industry research to increase gas production was described by E. S. Pettyjohn, director, Institute of Gas Technology, Chicago, Illinois. Pitfalls into which manufacturers, utilities, and dealers can fall by not taking advantage of existing methods of personnel,

selection and market study was highlighted by Alfred G. Blake, Rogers and Slade, management consultants.

Of special interest to delegates present was the announcement of G.A.M.A.'s enlarged statistical activities which will provide sales of appliances through 641 trading areas, and more complete reporting of appliance sales. Marketing committees announced plans which are aimed at eliminating the peak buying periods and lengthening the buying season for various appliances.

Water heating, range and refrigeration manufacturers announced substantially increased industry promotional budgets and activities.

Newly elected officials who will take office in October, 1948, are as follows: President—Frank J. Nugent, The Bryant Heater Company, Cleveland, O.; first vice-president, Stanley H. Hobson, George D. Roper Corp., Rockford, Ill.; second vice-president—Frederic O. Hess, president, Selas Corp. of America, Philadelphia, Pa.; treasurer—John Van Norden, secretary, American Meter Co., New York.



H. Leigh Whitelaw (left), John A. Robertshaw, G.A.M.A. managing director and president, respectively, with Hudson W. Reed, A.G.A. president

ACCOUNTANTS VIEW

(Continued from page 23)

Next event on the group's program was a paper by H. S. King, manager, Price, Waterhouse and Co., New York, on the coordination of internal and external audits. A. J. Frazer, Jr., West Penn Power Co., Pittsburgh, Pa., then introduced R. O. Linville, Kansas City Power and Light Co., who read a paper on machines applications for general accounting. Mr. Linville took the place of C. J. Wardell, The Commonwealth and Southern Corp., N. Y., committee co-chairman, who became ill Saturday evening before the conference and was unable to attend.

Arthur Skelton, The Peoples Gas Light and Coke Co., Chicago, Ill., completed the session with an interesting subcommittee report on methods of payroll distribution.

A second session of the Customer Activities Group was held Wednesday morning with Mr. Fyfe and Mr. Ray again presiding. "They Like to Pay the Easy Way," a talk on utility drive-in stations, was presented by H. S. Hahn, The Ohio Fuel Gas Co., Columbus, O., and illustrated by a film (Mr. Hahn's paper appears in this issue of the *MONTHLY*).

G. E. Curtis, Boston Consolidated Gas Co., Boston, Mass., then reported on new developments in electric tabulating card operations for customer accounting and billing.

Final presentations of this session were as follows: "Techniques of Customer Sampling," delivered by F. J. Porter, Consolidated Edison Co. of New York, Inc.; an interim report on accounting developments service, by W. R. Clement, Public Service Electric and Gas Co., and the showing of a unique film "By Jupiter," by W. P. Parkhouse, Jr., New Orleans Public Service, Inc., New Orleans, Louisiana. This is the country's top ranking film on this subject and is currently being shown to all types of industries.

Numerous luncheon conferences on Tuesday attracted large delegations and were featured by much informal discussion. The customer accounting luncheon was highlighted by reports of J. D. Elliott, The Detroit Edison Co., on the mechanics of irregular billing; W. J. Ott, The Cincinnati Gas & Electric Co., on production yardsticks, and A. G. Burnett, New York Power and Light Corp., Albany, N. Y., on uniform classification of accounts.

During the customer collections luncheon C. L. Havener, Consolidated Edison Co. of New York, Inc., presented a progress report on residential deposits, and O. B. Cook, Battle Creek Gas Co., Battle

Creek, Mich., gave a similar report on "pet" collection procedures.

A customer relations luncheon featured discussion of appliance service policies led by J. Gordon Ross, Rochester Gas & Electric Co., and W. R. Keagy, The Cincinnati Gas & Electric Co.; and on experiences with Saturday closing of company offices, with W. A. Kelly, Consolidated Gas Electric Light and Power Co. of Baltimore, as discussion leader.

Three half-day sessions of the Materials and Supplies Committee, presided over by G. B. Herr, The Peoples Natural Gas Co., Pittsburgh, Pa., were attended by approximately 40 members and guests. The following subjects were presented:

"Requisitions, Purchase Orders and Receiving Reports," L. G. Wisely, Michigan Consolidated Gas Co.; "Handling, Storage and Delivery of Major Appliances" and "Racks, Bins and Storage Facilities," B. H. Barnes, The Connecticut Light and Power Co.; "Systems of Codification of Materials and Supplies," R. M. Robinson, Republic Light, Heat and Power Co., Inc., Buffalo, N. Y. and "Methods of Machine Inventory Accounting Records," O. G. Peterson, New York State Electric and Gas Corp., Ithaca, N. Y.

Standard Packaging

A project report on "Standard Packaging" was delivered by L. R. Michelson, The Peoples Gas Light and Coke Co.; and will be placed before the Association's board of directors for action in the near future.

H. G. Lawrence, Southern Counties Gas Co., Los Angeles, Calif., presented committee members and guests with an attractive booklet on methods which his company employs in standard packaging and up-to-date warehousing.

As a climax to the meeting, committee members and guests attended a luncheon by The Laclede Gas Light Company, following which a conducted tour of inspection was made of that company's store rooms and shops.

Another series of three half-day meetings was held by the Taxation Accounting Committee with Frank Freer, Jr., Public Service Electric and Gas Co., presiding. During the course of a discussion of current tax problems on Tuesday morning, H. W. Ziethen, The Peoples Gas Light and Coke Co., spoke on Treasury Department Vacation Pay Ruling GCM 25261, and Everett C. Johnson, Arthur Andersen and Co., indicated that his organization is attempting to obtain a treasury ruling which may be beneficial from a taxation point of view for accruals of vacation pay.

E. P. Knapp, Potomac Electric Power Co., presented a paper on a relief claim under Section 722 of the Internal Revenue Code.

Additional papers were presented as follows: "Responsibility of a Company to its Pensioned Employees from a Tax Point of View," H. D. Heiby, The Cincinnati Gas & Electric Co.; "Review of Recent Court Decisions," Walter A. Union Electric Co. of Missouri; "Analysis of Various Short-Cut Methods of Checking the Adequacy of Current Depreciation Rates for Tax Accounting Purposes," J. J. Reilly, Ebasco Services, Inc.

The Wednesday morning session was devoted entirely to natural gas problems under the leadership of C. H. Mann, Columbia Engineering Corp., New York; T. F. Cartwright, Amarillo Gas Co., Amarillo, Texas, presented a fine paper on Section 735 problems during the course of this meeting, and gas storage problems and credit for excess output were also discussed.

Joseph R. Weger, Consolidated Gas Electric Light & Power Co., of Baltimore, was joint chairman of the tax sessions in the absence of H. S. Howard, Niagara Hudson Power Corp., Syracuse, New York.

A record attendance of 75 persons greeted the plant accounting meeting Tuesday afternoon and Wednesday morning. H. J. Rustad, Equitable Gas Co., Philadelphia, Pa., and L. C. Pursell, Pennsylvania Power and Light Co., presided.

A. J. Mayotte, Consumers Power Co., Jackson, Mich., presented an interesting paper on "Do Your Property Records Reflect Your Physical Plant," showing the checking of physical plant by use of sampling method as accurate as a detailed check.

Next K. R. Watson, Philadelphia Electric Co., discussed "The Problem of Providing Construction Accounting Force with Accounting Personnel on Major Projects." Replies from questionnaire submitted on "Property Records for General Equipment" were then summarized by A. L. Davies, West Penn Power Company.

On Wednesday J. A. Ryan, Consolidated Edison Co. of New York, Inc., gave results of a questionnaire on "Grouping Items into Pricing Units," and J. F. Preish, Michigan Consolidated Gas Co., delivered the paper "Use of Trial Unit Prices in Pricing Units of Property," in the absence of E. D. King, Detroit Edison Co., who was unable to attend.

The Subcommittee on Internal Auditing get-together luncheon on Monday was followed by a formal meeting Wednesday morning at which close to 100 persons were present. In addition, internal auditing papers were included at the Tues-

afternoon meeting of the General Accounting Activities Group.

Four papers featured the Wednesday meeting: "Internal Audits of Plant Accounts," E. J. Armbruster, New Orleans Public Service, Inc.; "Internal Audits of Cost-Plus-A-Fixed Fee Contract," P. J. Buzanga, Consolidated Edison Co. of New York, Inc.; "Internal Audits of a Purchasing Department," C. J. Nichols, Consolidated Gas Electric Light & Power Co., of Baltimore; and "Internal Audits of a Stores Department," D. E. Dooley, Wisconsin Electric Power Co., substituting for D. G. Martin, Pacific Gas & Electric Co., San Francisco, California.

Presiding at a luncheon of the joint Customer Relations Committees on Tuesday were Paul Ewers, Michigan Consolidated Gas Co., pinch-hitting for E. M. Alt, Northern Indiana Public Service Co., Hammond, Ind., and J. C. Faris, Union Electric Co. of Missouri.

Gordon Ross, Rochester Gas & Electric Co., and Walter Keagy, The Cincinnati Gas & Electric Co., discussed appliance servicing policies, suggesting the presence of inconsistencies between the handling of types of appliances.

W. A. Kelly, Consolidated Gas Electric Light and Power Co. of Baltimore, re-

viewed experiences with Saturday closing of business offices.

"Current Trends in Depreciation Accounting Practices" was the subject chosen to open the first of two depreciation meetings. It was pointed out that the manufactured gas industry has shown an increase in reserves over the last ten years of approximately 90 percent and an increase in accruals of approximately 45 percent.

For the natural gas industry the reserves showed an increase of about 60 percent while the accruals remained constant.

Other parallel meetings were held by functional or responsibility accounting, methods of payroll distribution, protection and preservation of records, licensed project accounting and reporting. A large gathering attended the machine applications meeting on Wednesday with A. J. Frazer, Jr., West Penn Power Corp., presiding. Representatives of four major accounting machines discussed manufacturers new and projected equipment in this field.

Trips to the accounting departments and store rooms of the two host companies Wednesday afternoon added a practical finishing touch to an impressive conference.

New A. G. A. Members

MANUFACTURER COMPANIES

The American Coach & Body Co., Cleveland, O. (C. G. Wood, director of sales)

Carbo-Flex Hose Co., A California Corp., North Hollywood, Calif. (L. G. Furness, secretary-treasurer)

Cleveland Steel Products Corp., Cleveland, O. (W. J. Smith, Jr., manager, Tordidheet Div.)

Dearborn Stove Co., Dallas, Texas (R. M. Leidstrand, vice-president)

Electric Steam Radiator Corp., Paris, Ky. (Roy R. Fisher, Jr., vice-president)

Fitzgibbons Boiler Co., Inc., New York, N. Y. (Paul K. Addams, president)

Fluid Heat Div., Anchor Products, Inc., Baltimore, Md. (M. J. Donahue, general manager)

Gasoil Heating Corp., Savanna, Ill. (Stuart K. Diggins, vice-president)

Harmar Products Co., Inc., San Francisco, Calif. (A. H. Blackwell, secretary-treasurer)
International Heater Co., Utica, N. Y. (N. R. Foloky, design engineer)
The Lynbrook Co., Muskogee, Okla. (John Lynch, vice-president, Garland, Texas)
Milwaukee Gas Engineering Corp., Milwaukee, Wisc. (C. O. Craighead, president)
Norwalk Valve Co., South Norwalk, Conn. (Andrew Dolfini)

Parsons Industries, Traverse City, Mich. (John T. Parsons, vice-president)

Quiet-Heet Mfg. Corp., Newark, N. J. (Bruno Sachs, production manager)

Trageser Copper Works, Inc., Maspeth, N. Y. (A. Visnick, chief engineer)

XXth Century Heating & Ventilating Co., Akron, O. (J. Garver Kerch, president)

Western Sectional Boiler & Heater Inc., Los Angeles, Calif. (F. R. Shultz, secretary-treasurer)

INDIVIDUAL MEMBERS

J. Lee Adkins, The Peoples Gas Light & Coke Co., Chicago, Ill.

Mrs. Lynn Ahlquist, E. H. Poe Northeast Utilities Equip. Corp., Stamford, Conn.

Francis X. Asselin, Fall River Gas Works Co., Fall River, Mass.

Robert J. Becker, The Key City Gas Co., Dubuque, Ia.

Capt. Harold E. Bramston-Cook, Oronite Chemical Co., New York, N. Y.

Alvin R. Bravender, The Alvin R. Bravender Co., Portland, Ore.

(Continued on page 48)

Convention Calendar

1948

MAY

- 4-5 •A. G. A. Natural Gas Department, Rice Hotel, Houston, Texas
18-20 •Pennsylvania Gas Association, Annual Meeting, Galen Hall, Wernersville, Pa.
24-25 •A. G. A. New York-New Jersey Regional Gas Sales Conference, Westchester Country Club, Rye, N. Y.
24-26 •A. G. A. Production and Chemical Conference, Berkeley-Carteret Hotel, Asbury Park, N. J.
27-28 •Natural Gas and Petroleum Association of Canada, General Brock Hotel, Niagara Falls, Ontario

JUNE

- 7 •A. G. A. Southwest Personnel Conference, Birmingham, Ala.
8-11 •The Institute of Gas Engineers, London, England
9 •A. G. A. Midwest Personnel Conference, Kansas City, Mo.
21-24 •American Home Economics Association, Annual Meeting, Minneapolis, Minn. (A. G. A. will exhibit)
21-25 •American Society for Testing Materials, Book-Cadillac Hotel, Detroit, Mich.

JULY

- June 30-July 3 •Canadian Gas Association, Annual Convention, Jasper Park Lodge, Jasper, Alberta
12-13 •Michigan Gas Association—Michigan Electric Light Association, Grand Hotel, Mackinac Island

SEPTEMBER

- 10 •New Jersey Gas Association, Hotel Monmouth, Spring Lake, N. J.
14-16 •Pacific Coast Gas Association, Hotel Casa del Rey, Santa Cruz, Calif.

OCTOBER

- Week of October 4 •A. G. A. Annual Convention and G.A.M.A. Exhibit, Atlantic City, N. J.
14-15 •Texas Mid-Continent Oil and Gas Association, Fort Worth, Texas
18-22 •National Safety Congress, Chicago.

NOVEMBER

- 8-11 •American Petroleum Institute, Stevens Hotel, Chicago, Ill.
15-18 •National Association of Railroad and Utilities Commissioners, Savannah, Ga.

DECEMBER

- November 28-December 3 •American Society of Mechanical Engineers, New York, N. Y.

Carl N. Brown, United States Pipe & Foundry Co., Chicago, Ill.

James A. Cahners, Bangor Gas Co., Bangor, Me.

Barclay R. Challenger, Tennessee Valley Authority, Wilson Dam, Ala.

L. W. Coughlan, Pacific Gas & Electric Co., San Francisco, Calif.

Louis G. Crenshaw, Gas Consumers Association, New York, N. Y.

Charles I. Crippen, Penn-Western Service Corp., New York, N. Y.

Ralph W. Cutler, Consolidated Steel Corp., South Pasadena, Calif.

Frank C. Dalley, Southern California Gas Co., Los Angeles, Calif.

Wm. Dannenfelsler, Louisville Gas & Electric Co., Louisville, Ky.

Ray W. Dundas, Edward R. Bacon Co., San Francisco, Calif.

Daniel J. Egan, The Manufacturers Light & Heat Co., Pittsburgh, Pa.

John H. Eiseman, National Bureau of Standards, Washington, D. C.

H. W. Fathauer, Gas Consumers Association, San Francisco, Calif.

Elbridge M. Felch, Fall River Gas Works Co., Fall River, Mass.

John H. Flynn, Flynn Burner Corp., Pelham, N. Y.

James F. Gary, Seattle Gas Co., Seattle, Wash.

John F. Gerski, The Peoples Gas Light & Coke Co., Chicago, Ill.

Wilbert H. Glines, Michigan Consolidated Gas Co., Detroit, Mich.

F. N. Goodrich, Southern California Gas Co., Taft, Calif.

Arthur C. Gustafson, The Malleable Steel Range Mfg. Co., Forest Hills, N. Y.

Robert S. Hamilton, Public Service Electric & Gas Co., Passaic, N. J.

G. H. Harbison, Philadelphia Gas Works Co., Philadelphia, Pa.

H. B. Hardwick, Consumers Power Co., Jackson, Mich.

Hon. Hardin R. Harmer, West Virginia Oil & Natural Gas Assoc., Shinnston, W. Va.

Clarence E. Hebert, J. C. Pitman & Sons Sales Corp., Los Angeles, Calif.

Gerard M. Ives, Guaranty Trust Co. of N. Y., New York, N. Y.

Michael H. Jelinek, Jr., The Peoples Gas Light & Coke Co., Chicago, Ill.

D. E. Jordan, Compania Cubana de Electricidad, Havana, Cuba

George D. Kellam, Canadian Western Natural Gas Co., Ltd., Calgary, Alberta

Frederick Krug, Monterrey Railway, Light & Power Co., Ltd., Montreal, Quebec

B. M. Laulhere, Jr., Pacific Pipeline & Engineers, Ltd., Los Angeles, Calif.

John Licata, Standard Oil Co. of California, San Francisco, Calif.

Joseph A. Love, Pacific Gas & Electric Co., San Francisco, Calif.

Alexander A. Marks, Consulting Engineer, Wilmington, Del.

Richard A. Masterson, Public Service Electric & Gas Co., Plainfield, N. J.

R. I. Meyerholz, Pacific Gas & Electric Co., San Francisco, Calif.

W. Howard Miller, Guaranty Trust Co. of N. Y., New York, N. Y.

David G. Peck, Southern California Gas Co., Los Angeles, Calif.

James A. Pink, The Peoples Gas Light & Coke Co., Chicago, Ill.

Joseph E. Raso, Public Service Commission, New York, N. Y.

William H. Regan, Scranton-Spring Brook Water Service Co., Scranton, Pa.

William T. Reid, Battelle Memorial Institute, Columbus, O.

Kurt Ruschin, The Power-Gas Corp., Ltd., Stockton-on-Tees, England

Paul A. Seltzer, Distributor of Heating Equip., Upper Darby, Pa.

Sidney B. Shaw, Pacific Gas & Electric Co., San Francisco, Calif.

Robert P. Smith, United Engineers & Constructors Inc., Philadelphia, Pa.

Edward H. Smoker, The United Gas Improvement Co., Philadelphia, Pa.

John E. Spaeth, Southern California Gas Co., Los Angeles, Calif.

John Thornborrow, Northwestern Mutual Life Insurance Co., Milwaukee, Wis.

Robert E. Whitford, Private Consulting Rail Analyst, Maplewood, N. J.

William K. Yates, Gas Consumers Association, Philadelphia, Pa.

Personnel Service

SERVICES OFFERED

Chemist—January 1948 graduate—Majored in organic chemistry with a special course in quantitative organic microanalysis. Seeks opportunity and will work hard to learn and gain experience. (20). 1570.

Executive Engineer—Seventeen years engineering experience leading to Chief Engineer, through all departments with large, well known organizations manufacturing heating, air conditioning equipment, presses, automatic machinery and electronic equipment. Unusual ability to get along with people and get things done. Graduate M.E. Married. (33). 1571.

Sales connection with reputable manufacturer of stoves. 18 years personal contact with utility merchandising; interested in Southern and Southwest territories. 1572.

Gas utilization engineer with broad experience in appliance development, testing, and research desires employment with sound, progressive organization which will lead to administrative position in production. Southwest location preferred. 1573.

Chemical Engineer—1948 graduate seeks employment, preferably in production or process design work, but will consider any other type. Married, veteran. Knows Spanish. (29). 1575.

Operating Executive—First class education. Fifteen years' experience all phases manufactured gas. Five years' research and development during war. At present Assistant Superintendent very large blue gas plant. Eastern location preferred. 1576.

Gas Operating Engineer some experience in manufacture and distribution of water, coal, and propane gas desires position in gas company where he can get more operating experience. Single, State licensed graduate engineer. Florida location desirable but would be interested anywhere on eastern seaboard. 1577.

Operating Engineer thoroughly familiar with all phases of Water Gas, Oil Gas and Butane-air production and distribution. Technical education (Graduate Engineer) and 27 years' usually broad experience. 1578.

Engineer, Mechanical—Graduate June 1948 NYU, Machine Shop experience. Married, available June 1 for position in East. 1579.

Public Utility Holding Company Statistician seeks employment. Thirty years with company recently dissolved in compliance with Public Utility Act. Been in charge of analysis and preparation of comparable operating reports of subsidiary properties used for supervisory purposes. Covered gas, electricity, steam, water

and transportation. Location New York City. Salary open. 1580.

Manager—Utility serving 80,000 meters currently employed, desires new connection in position (administrative, technical or sales) which could utilize 25 years' experience all phases of gas utility operation and management with companies distributing water, coal and natural gas. Will furnish detailed qualifications, No preference as to location. Graduate engineer (45). 1581.

Fuel Technologist—June '48 graduate seeks employment preferably in sales engineering work, however will consider work in other phases of the Gas or allied industries. Courses of study include Fuel Gases and Gasification, Thermal Processing of Fuels, Combustion Engineering, and Plant Layout and Design. Veteran, single. (24). 1582.

POSITIONS OPEN

Appliance Instructor—Experienced in conducting school and instructing servicemen in the operation and maintenance of all domestic and industrial Gas Appliances. Salary commensurate with experience and ability. Please furnish references and full particulars regarding education, qualifications and other personal data necessary for proper appraisal. 0524.

Man for sales on special gas pressure control equipment; primarily a salesman with sufficient background in heavy distribution work who could be trained to handle the engineering work in the field. Considerable road work now with the idea of later becoming sales manager. 0525.

Superintendent of high pressure natural gas transmission system in Northern California. Requires experience with ability to direct field forces in operation and maintenance of high pressure pipe lines including meters, regulators and controls; also office personnel performing dispatching, accounting, meter calculations, etc. Prefer applicant 30-40 year with some college education or equivalent. Write, stating personal history, previous experience, and salary expected. 0526.

Pacific Northwest Gas Utility has an opening for a mechanical or chemical engineer for a position as maintenance engineer in oil-gas and water-gas plant. Position will require work in plants under production superintendent. Mechanical and structural drafting and design experience necessary. Will be required to prepare equipment maintenance schedules and supervise their execution. Prefer man with at least five years gas plant maintenance engineering experience. Apply, giving full particulars as to age, education, experience and salary expected, in first letter. 0527.

Executive Accountant—For midwest natural gas company. Position requires a man under forty-five to work in Controller's Department. He should be a college graduate with experience in public and utility accounting and be able to supervise employees. Complete résumé with education, experience and salary expected will be received in strictest confidence. 0528.

Gas Plant Design Engineer with 5 to 15 years experience. 0529.

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Man. Dir.—H. Leigh Whitelaw, 60 East 42nd St., New York, N. Y.

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Pres.—F. A. Brownie, Canadian Western Natural Gas, Light, Heat & Power Co., Ltd., Calgary, Alta.
Exec. Sec.-Tr.—George W. Allen, 7 Astley Ave., Toronto.

Gas Meters Association of Florida-Georgia

Pres.—Clifford Noda, St. Augustine Gas Co., St. Augustine, Fla.
Sec.-Tr.—J. W. Owen, Central Florida Gas Corp., Winter Haven, Fla.

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Sec.-Tr.—Clarence W. Goris, Northern Indiana Public Service Co., 500 Broadway, Gary, Ind.

Maryland Utilities Association

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Sec.—Raymond C. Breault, Washington Gas Light Co., Washington, D. C.

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Southern Gas Association

Pres.—W. H. Ligon, Nashville Gas & Heating Co., Nashville, Tenn.
Man. Dir.—Robert R. Suttle, 1230 Mercantile Bank Building, Dallas 1, Texas.

Wisconsin Utilities Association

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